Politeness Theory: Compliance and Paralinguistic Cooperation

A Dissertation Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Jamie Jacqueline Osborn

December 2020

Abstract

This manuscript is comprised of three research studies focused on politeness, shame, and cooperation. Study one is a pretest to develop stimuli for the subsequent experiment. The stimuli are comprised of messages that vary by both the type and degree of politeness. There are two types of politeness: regard for another's identity and regard another's independence (autonomy). There are also two degrees of politeness: presence and absence of regard. Presence of regard is considered politeness and absence of regard is considered impoliteness. This creates four conditions: identity politeness, autonomy politeness, identity impoliteness, and autonomy impoliteness. This study included exemplars of politeness strategies and used a confirmatory factor analysis (CFA) to create a model of politeness and utterances that indicate each type of politeness. This study also collected data on paralinguistic cooperation to begin the development of a scale through an exploratory factor analysis (EFA). Study two was used to gather data to create a model of paralinguistic communication to be subjected to a CFA. The model supports paralinguistic communication as a two-factor measure: non-cooperative communication and cooperative communication. Study three was an experimental design to test a model positing politeness exerts causal force on experiences of shame, which in turn, exert causal force on both behavioral and paralinguistic cooperation. The model was not supported. Results suggest some association between politeness and cooperation. These results support politeness theory's claim that politeness does have a relationship with cooperation, however no support for the notion that the politeness—cooperation relationship is mediated by shame was provided due to the inability to test the path model.

Keywords: politeness; compliance; paralinguistic; cooperation; shame

Table of Contents

Chapter 1: Introduction 1
Chapter 2: Review of Literature 5
Politeness Theory 5
Acts and Strategies 8
Relevant Previous Research 12
Future Research 15
Shame 16
Cooperation 28
Defining Cooperation 28
Shame and Cooperation 32
Chapter 3: Pretest Methods 39
Subjects 39
Stimuli 40
Measures 40
Politeness Acts 41
Paralinguistic Cooperation 42
Procedure 42
Chapter 4: Pretest Results 44
Chapter 5: Pretest Discussion 52
Results Discussed 52
Limitations 54
Future Research 55
Chapter 6: Cooperation Validation Methods 57
Subjects 57
Measures 57
Procedure 59
Chapter 7: Cooperation Validation Results 61
Chapter 8: Cooperation Validation Discussion 63
Results Discussed 63
Limitations 64
Future Research 66
Chapter 9: Experimental Methods 68
Subjects 68

Stimuli and Procedure 70
Shame 71
Cooperation 77
Model Fit 81
Post-hoc Analyses 81
Hypotheses 82
Modified Path Model 90
Chapter 11: Experimental Discussion 92
Politeness Theory 92
Social Self-Preservation Theory 95
Practical Implications 95
Limitations 96
Future Research 100
Practical Implications 103
Appendix A: Pretest Scenarios and Instructions 112
Appendix B: Pretest Consent Form 116
Appendix C: Cooperation MTurk Advertisement and Instructions 118
Appendix D: Cooperation Consent Form 119
Appendix E: Cooperation and Experiment Rejection Message 121
Appendix F: Experiment MTurk Advertisement and Instructions 122
Appendix G: Experiment Consent Form 123
Appendix H: Feedback Messages 126
Appendix I: Debriefing 130
Vita 131

List of Tables

Table 1. Speech Act Exemplifiers. 17

Table 2. Paralinguistic Cooperation Items. 33

Table 3. Pretest Fit Statistics. 45

Table 4. Paralinguistic Cooperation Eigen Values. 49

Table 5.Cooperation Validation Demographics. 58

Table 6. Cooperation Validation Fit Statistics. 62

Table 7. Experiment Demographics. 69

Table 8. Experiment Measure Descriptive Statistics. 72

Table 9. Shame Items. 73

Table 10. Experiment Measure Fit Statistics. 74

Table 11. Paralinguistic Cooperation Scale Items. 78

Table 12. Four Condition Mean Comparisons. 83

Table 13. Four Condition post-hoc Analyses. 84

Table 14. Analysis of Variance between Politeness and Impoliteness. 86

Table 15. Experiment Correlation Matrix. 88

List of Figures

Figure 1. Conceptual Model of Types of Politeness and Indicators. *23*

Figure 2. A conceptual model of Paralinguistic Cooperation. *35*

Figure 3. Modified Experimental Conceptual Model......*37*

Figure 4. Tested Politeness Model. *47*

Figure 5. Cooperation EFA Scree Plot. *51*

Figure 6. Conceptual and Tested Model of Paralinguistic Communication from Study 2. .....*60*

Figure 7. Shame CFA. *76*

Figure 8. Experimental Paralinguistic Cooperation Model......*79*

Figure 9. Modified Experimental Model Tested......*91*

Chapter 1:

Politeness Theory: Compliance and Paralinguistic Cooperation

Why are humans polite? Is politeness beneficial? Does it aid in goal achievement? These are some of the unanswered questions related to the communicative phenomenon of politeness, which is undeniably present but loosely understood. Children are socialized to be polite and, in fact, some of the first phrases taught to children are "please" and "thank you," however little empirical support is offered as to why (Miller et al., 2010). Politeness theory emphasizes the importance of politeness through claiming politeness is the foundation for social order, achieved through cooperation (Brown & Levinson, 1987). This is a meaningful claim because social order and cooperation are required for humans to adapt to their environments and survive (Moya-Albiol et al., 2013). At a detailed level, understanding cooperation is understanding what leads humans to sacrifice wants and needs, human motivation, decision making, and how and why societies evolve and thrive (Grujic et al., 2014). The association between understanding cooperation and understanding these processes exists because these processes are required, at varying degrees, for humans to cooperate with one another (Grujic et al., 2014).

Politeness and cooperation research exists, but not to the degree that one should confidently claim politeness is the foundation for cooperation. This lack of confidence stems from poor operationalizations of politeness speech acts, limited research on variables mediating the politeness-cooperation relationship, and poor communication related conceptualizations and operationalizations of cooperation. The current study proposes the following: an operationalization of politeness speech acts, a variable that mediates the politeness-cooperation relationship, and a communicative conceptual and operational definition of cooperation.

Conceptually, the degree to which a speech act is considered polite is dependent upon adherence to face wants (Brown & Levinson, 1987). Face is the public self-image every member claims for themselves (Goffman, 1959). Humans are motivated to manage the impressions they make on one another and humans desire a consistent self-image that is accepted and adhered to by society (Goffman, 1959). Reciprocation of face needs is how humans develop and maintain relationships with one another in society (Goffman, 1959). Politeness theory claims there are two types of face: positive face and negative face (Brown & Levinson, 1987). Positive face is understood as social identity (Brown & Levinson, 1987). Adherence to positive face wants is consideration for one's intended social identity and violation to positive face wants is disregard for one's intended social identity (Brown & Levinson, 1987). Adherence to negative face wants is consideration for one's sense of independence and negative face violation to negative face wants is disregard for one's sense of independence (Brown & Levinson, 1987). Linguistic adherence to face wants is labeled, "face saving acts" and linguistic violation to face wants is labeled, "face threatening acts" (Brown & Levinson, 1987). Politeness theory proposes specific types of linguistic strategies, such as joking, inclusive language, and threats, that communicate either adherence to or disregard for face. Using these linguistic strategies, the current study developed exemplars and measured the degree to which subjects perceived the exemplar to accomplish the face management goal (positive/negative and saving/threatening) it is proposed to represent. All of the strategies, as well as their respective face management goals, are presented in the literature review.

This study claims shame mediates the politeness-cooperation relationship. The reasoning behind this claim is introduced now and discussed in more detail in the literature review. An overview of the logic behind this claim is as follows. Social self-preservation theory claims

negative social evaluation and the inability to control a situation are the two psychological factors that have the most stable relationship with Hypothalamic-Pituitary-Adrenal Axis activity, as indicated through cortisol levels (Dickerson & Kemeny, 2004). Specifically, negative social evaluation and the inability to control a situation are associated with an increase in cortisol activity (i.e., higher cortisol levels) (Dickerson & Kemeny, 2004). Perceiving negative social evaluation overlaps with positive face threat perceptions in that both are characterized by aversive social interactions (Dickerson & Kemeny, 2004; Brown & Levinson, 1987). Perceiving the inability to control a situation overlaps with negative face threat perceptions in that both are characterized by perceiving restrictions in freedom to act (Dickerson & Kemeny, 2004; Brown & Levinson, 2004). The two psychological factors, proposed by social self-preservation theory to have a relationship with cortisol levels, are conceptually similar to violations of positive and negative face wants and therefore it is concluded face threatening speech acts elicit cortisol activity.

Social self-preservation theory also claims increased cortisol levels have a positive relationship with experiences of shame (Birditt et al., 2015; Dickerson & Kemeny, 2004; Ditzen et al., 2009). Shame is an aversive social emotion characterized by perceptions of rejection, humiliation, and guilt (Rusch et al., 2007). If negative social interaction and the perception of the inability to act freely cause an increase in cortisol activity, and an increase in cortisol activity causes shame, then the strategies, proposed by politeness theory to either induce or negate perceptions of negative social interaction or the inability to act freely, should have a causal relationship with shame (Brown & Levinson, 1987; Dickerson & Kemeny, 2004; Ditzen et al., 2009). Further, research consistently concludes desirable social emotions cause prosocial social behavior, such as cooperative acts, and aversive social emotions cause antisocial behavior, such

as uncooperative acts (Afifi et al., 2011; Ditzen et al., 2009; Floyd, 2006; Hovland et al., 1953). Beyond mediating the politeness-cooperation relationship, shame is a meaningful variable to research because understanding emotions helps humans comprehend their environments in more nuanced ways and increased emotional intelligence is associated with increased social skills (Solomon & Theiss, 2013). Further, shame is associated with cortisol activity, which influences both short-term and long-term well-being and health (Dickerson & Kemeny, 2004).

The term "cooperation" is taken directly from seminal politeness theory literature (Brown & Levinson, 1987). No conceptualization was offered and therefore subsequent writing and research related to politeness and cooperation has been inconsistent and somewhat contradictory, which is discussed in more detail in the literature review (Baxter, 1984; Kellerman & Shea, 1996; Miller et al., 2010). Based upon previous literature, this study conceptualizes cooperation as alignment of human behavior, based on the needs of the whole rather than the needs of the individual and consists of behavioral and communicative components (Attardo, 1997; Giles et al., 2007; Goldsmith et al., 2012; Grujic et al., 2014; Laadegard, 2009; Manson et al., 2013; Obrien et al., 1968;).

Chapter 2: Review of Literature

The following sections review relevant literature related to the politeness-cooperation relationship. Specifically, this review begins by describing the claims made by politeness theory, and presenting relevant politeness theory research. Then, the overlap between politeness theory and social self-preservation theory is reiterated, with more specificity, through describing the physiological response triggered by social stimuli that elicits the experience of shame, in more detail. Relevant research related to this process is presented as well. Finally, previous literature and a reconciliation related to conceptualizing and measuring cooperation is presented.

Politeness Theory

As previously introduced, politeness is divided into four categories. First, politeness theory divides the concept of face into two dimensions: positive face and negative face. Positive face is understood as the desire to have a consistent self that is accepted (at least by some) in positive regard. Negative face is understood as the desire to have freedom of action and freedom from imposition. It is important to note that the use of the word, “negative” to describe a type of politeness is counterintuitive and the true meaning of the word “negative” in this context must be kept in mind. Brown and Levinson (1987) assume members of society maintain one another's face, unless the desire for some other want or goal supersedes the desire to maintain face. Secondly, there are face saving acts and face threatening acts. Therefore, the four types of politeness include positive face saving acts, negative face saving acts, positive face threatening acts, and negative face threatening acts. In politeness theory, any speech act that violates positive and/or negative face is labeled a, "face threatening act." Any speech act designed to maintain positive and/or negative face is labeled a, "face saving act." It is assumed that when crafting face saving acts, the sender chooses an act of appropriate corresponding risk, rather than an act that

would be suited for a riskier act, to ensure the riskiness of the face threat is not unintentionally magnified. For example, if a person is asking another person to pass the salt, the sender of the request would not include many, complex, face saving strategies so as to not unintentionally communicate to the request receiver that this simple request is a high level of imposition. Finally, politeness theory assumes both senders and receivers of messages are subject to face threatening acts. Consider the following example: A person waiting for the bus asks a stranger to borrow bus fare. The sender of the request has potentially threatened his/her own positive face by presenting a self that is low on resources and in need of assistance. Simultaneously, the receiver's negative face is threatened if he/she feels as though his/her freedom of choice has been infringed upon.

Politeness theory suggests five approaches to face saving acts: bald-on-record, positive redress, negative redress, off record, and avoidance. Of importance to note, face saving acts are necessary when the intent of a message would threaten face if not otherwise linguistically camouflaged. The bald-on-record approach involves directly stating the face threat. This approach would be used in instances where the desired goal of the face threat exceeds the desire to maintain face. For example, if there were a fire, the sender of a message may yell "GET OUT" without much concern for whether the receivers of the message feel as though their negative face has been threatened. Positive redress, or positive politeness, are linguistic strategies used to minimize the degree to which a message threatens positive face. Positive redress/politeness includes acts and strategies such as claiming common ground (attend to receiver's wants and needs, exaggerate interest in receiver's interests, joke, or use in-group identity markers); demonstrating self as a cooperator (presupposing receiver's wants and needs); and including both sender and receiver in activity (using plurals). Negative redress, or negative politeness, are

linguistic strategies used to minimize the degree to which a message threatens negative face. Negative redress/politeness includes acts and strategies such as not presupposing receiver's wants and needs (questions/hedges); not impinging or coercing (apologizing, being pessimistic, normalizing request); and redressing request (state debt incurred). The off record approach involves indirectly stating a request that could be interpreted as not a request at all. For example, if the sender wanted the receiver to attend the library with him/her, s/he might say something along the lines of, "I'm going to the library to study." Although this is intended to request the recipient accompany the sender to the library, it avoids face threat because it does not explicitly request library attendance and could be interpreted as merely a statement of fact. Finally, the avoidance approach involves not communicating the request to avoid threatening face.

Of importance to note are the contextual factors that influence politeness strategy choices. Brown and Levinson (1987) state that the degree to which face redress is necessary is dependent on three rather abstract and ambiguous contextual factors: power discrepancy, social distance, and magnitude of request. These contextual factors are abstract and ambiguous because they vary by the setting and personal interpretation. However, generally, an increased power discrepancy is associated with the less powerful communicator to need more politeness strategies and the more powerful communicator to need less politeness strategies (Brown and Levinson, 1987). Social distance refers to the frequency and closeness of two communicators and typically those in close relationships utilize more politeness strategies (Baxter, 1984). The magnitude of the request refers to degree of imposition of the request and has a positive relationship with need for politeness strategies (Brown and Levinson, 1987).

Acts and Strategies

The following face saving and face threatening acts and strategies are those proposed by Brown and Levinson's book on politeness theory (1987). Acts can be understood as the abstract categories to which the concrete strategies belong. Subsequent paragraphs in this section state the acts and associated strategies related to positive face saving, positive face threatening, negative face saving, and negative face threatening.

Positive Face Saving. Positive politeness and positive face saving acts/strategies are all used synonymously throughout the literature. Positive face saving acts are those that are oriented toward the positive self-image of the message receiver. Positive face saving acts involve the receiver of the message to feel as though he or she is respected, a member of the in group, and a person whose wants and personality traits are known and liked. The broad acts include claiming common ground, conveying communication partners are cooperators, and fulfilling the message receiver's wants. Further, positive face saving acts should leave the receiver feeling as though his or her wants for actions, acquisitions, and/or values are thought of as desirable. Positive face saving involves partially satisfying that desire by communicating that one's own wants are in some respects similar to the receiver's wants. Positive face saving acts consist of 15 total strategies.

Claiming common ground is understood as the sender of the message (S) claiming that the sender and receiver of the message (R) both belong to some set of persons who share specific wants, including goals and values. There are three ways of making this claim: (1) S conveys some want of R's is admirable or interesting to S, (2) Common membership in a group, and (3) Common perspective. The act of claiming common ground consists of eight strategies: (1) Notice, attend to R (include self, joke), (2) Exaggerate interest, approval, sympathy with R,

(exaggerated intonation, stress, intensifying modifiers); (3) Intensify interest to R (Dramatic story, stresses sincerity of S's good intentions, increases the interest of the conversational contributions); (4) Use in-group identity markers (address forms, keep power distance small, use of in-group language or dialect, jargon/slang, shared associations, contraction/ellipsis, shortening names); (5) Seek agreement (safe topics, repetition); avoid disagreement (token agreement, pseudo-agreement, white lies, hedging opinions); (7) Presuppose/raise/assert common ground (gossip, small talk, point-of-view operations, person-centered switch, tag question, place switch, presuppositions); and (8) Joke.

Conveying that S and R are cooperators indicates that S and R share goals and therefore positive face saving is done through suggesting cooperation. Conveying that S and R are cooperators consists of six strategies: (9) Assert or presuppose S's knowledge of and concern for R's wants (show alignment between wants); (10) Offer, promise; (11) Be optimistic; (12) include both S and R in the activity; (13) Give reasons; (14) assume or assert reciprocity.

The final broad act of positive face saving is fulfilling R's wants and includes one strategy. Strategy (15) of positive face saving is giving gift to R. Gifts can include goods, sympathy, understanding, and/or cooperation.

Positive Face Threatening. Positive face threatening acts include two broad categories: acts that suggests a negative evaluation of the receiver and acts that show indifference or that the receiver is not cared about. Specific acts that suggest a negative evaluation of the receiver include expressions of disapproval, criticism, contempt, ridicule, complaints, reprimands, accusations, insults, contradictions, disagreements, and challenges. Specific acts that show indifference or that the receiver is not cared about include expressions of violent emotions, irreverence, mention of taboo topics, bringing up bad news about the receiver or good news

about the sender, raising of emotional topics, non-cooperation in activity (disrupting, non-sequiturs, non-attention), and misidentification.

Negative Face Saving. Negative face saving is oriented toward the receiver's want to maintain claims of territory and self-determination. Negative face saving includes avoidance-based strategies and assurances that the sender recognizes and respects the receiver's wants. Negative face saving acts include self-effacement, formality and restraint, apologies, deference, hedges, impersonalizing mechanisms (passives). Ultimately, negative face saving communicates the recognition that the receiver wants to have freedom of action unhindered and his/her attention unimpeded. Negative politeness consists of the broad acts of being direct, not assuming, not coercing, communicating desire to not impinge, and addressing other wants of the receiver. Within these broad acts, negative face saving consists of 10 specific strategies.

The idea behind being direct is to save the receiver's time by stating wants directly. Being direct consists of one specific strategy labeled (1) be conventionally indirect. Being conventionally indirect involves using phrases and sentences that have contextually unambiguous meanings. These unambiguous meanings, however, must be different from literal meanings. This is an effortful strategy that includes being pessimistic, questioning, and hedging.

Not presuming or assuming involves avoiding presumptions of the receiver's wants, what the receiver finds relevant and interesting, and keeping distance from the receiver. This act includes the strategy of (2) questioning and hedging. Questioning and hedging is done to not presume or coerce the receiver. Questioning is done to obtain explicit information on the receiver's wants and needs and hedging involves inserting words and phrases that manipulate Grice's maxims. This includes varying full responsibility for truthfulness, varying the amount of information, apologizing for the change in topic, and being succinct.

Not coercing involves giving the receiver the option not to do the act. This act involves (3) being pessimistic, (4) minimizing the imposition, and (5) giving deference. Being pessimistic is understood as explicitly expressing doubt that the request is reasonable and/or appropriate. Minimizing the imposition involves using language that implies minimal amounts. Words such as tiny, small, and little can be used to minimize imposition. Giving deference is understood as the sender humbling his or herself to the receiver. This includes pluralizing language, using titles, and indicating the receiver's wants are greater than the senders.

Communicating the sender's want to not impinge on the receiver includes the strategies of (6) apologizing, (7) impersonalizing, (8) stating the face threatening act as a general rule, and (9) normalizing. Apologizing includes admitting the impingement, indicating reluctance, giving overwhelming reasons, and begging forgiveness. Impersonalizing involves phrasing the face threatening act as if the sender is not responsible for the act. This includes omitting "you" and "I" language, using passive and circumstantial voices, and inserting past tense words to increase social and emotional distance. Stating the face threatening act as a general rule involves referring to the receiver as part of a collective group. Normalizing involves speech characterized by a high number of nouns.

Addressing other wants of the receiver is understood as a debt being incurred. This act involves the strategy of (10) going on record as incurring a debt to the receiver. This strategy indicates the sender would be indebted to the receiver.

Negative Face Threatening. Negative face threatening acts include three broad categories: acts that put pressure on the future acts of the receiver, putting the receiver in debt, and acts that communicate a desire of goods. Specific acts that put pressure on the future act of the receiver and include (1) orders, requests, suggestions, advice, reminders, threats, warnings

and dares. Specific acts that put the receiver in debt include (2) offers and promises. Specific acts that communicate a desire of goods include (3) compliments, expressions of envy or admiration, and expression of emotion.

Relevant Previous Research

Generally, previous research on politeness suggests polite communication is associated with more prosocial outcomes (Goldsmith, 1992; Goldsmith & MacGeorge, 2000; Afifi & Lee, 2000; Carson & Cupach, 2000; Rees & Knight, 2008). Regard for individuals' "face" is claimed to be central to interactional outcomes (Goldsmith, 1992). Specifically, the degree to which it is perceived a communication partner is showing regard for face predicts evaluations of message effectiveness (Goldsmith, 1992; Goldsmith & MacGeorge, 2000). Further, it was found that communicating cooperatively about lifestyle changes was associated with better perceptions of an interaction and more positive ratings of conversational outcomes (Goldsmith et al., 2012). Communicating cooperatively was understood as joint problem solving, taking turns, meta-communication, "saying it nicely," not exerting control, and non-dominant patterns.

A study conducted on the role of request directness and request persistence in the selection of sexual resistance strategies concluded that subjects rated themselves as being polite in the first resistance strategy and consistently less polite in subsequent attempts at resisting sexual advances (Afifi & Lee, 2000). However, subjects also indicated they would be highly direct at the first attempt at resisting sexual advances. Carson and Cupach (2000) studied face threat and subsequent perceptions in the workplace. Subjects were asked to describe a reproach situation with a manager and then rate the manager/workplace in terms of anger, interactional fairness, overall satisfaction, and communication competence. The data were then analyzed for degree to which face threatening acts and face saving acts were present and it was concluded

face saving acts had a positive relationship with perceptions of interactional fairness, communication competence, and satisfaction and a negative relationship with anger. Politeness theory was also studied in association with relational dialectics theory (Jameson, 2004). It was concluded that politeness strategies are useful linguistic tools to cope with the autonomy vs. connection tension and the strategies can be used for conflict management. Face saving strategies were associated with more positive perceptions in the context of a hospital as well (Rees & Knight, 2008).

Several studies have been conducted on social influence and politeness but very limited conclusions can be made. Kellerman and Shea (1996) presented subjects a variety of politeness strategies and then had subjects rate the degrees to which the strategies were perceived as polite and effective. The authors hypothesized face saving strategies would be perceived as the most polite and the face threatening strategies would be perceived as the most effective. The results suggested no relationship between strategy type and perceptions of politeness or effectiveness. Unfortunately, Kellerman and Shea (1996) did not actually implement these strategies to measure compliance gaining power, rather they presented the strategies and measured intentions of compliance. Similarly, Baxter (1984) conducted an investigation of compliance-gaining as politeness, but again, only measured perceptions of the strategies and did not measure compliance-gaining behavior. One study that did measure compliance power was by Miller et al., (2010). In this study, subjects were completing a simulated task while being given instructions by a narrator in a headset. The conditions were characterized by varying degrees of politeness and the results of the study indicated compliance increased by 34% in the more polite conditions. The operationalization of politeness strategies was discussed generally and therefore the validity of the politeness messages could not be evaluated or replicated. When taken together, the

findings of these studies yield an inconclusive position on the relationship between politeness and cooperation.

The findings from Afifi et al.'s (2009) study and Kellerman and Shea's (1996) study have similar, conflicting relationships with those proposed by politeness theory. Politeness theory suggests face saving acts should be perceived as more polite than face threatening acts and that the indirect, face threatening acts should be highly effective (Brown & Levinson, 1987). However, Kellerman and Shea's (1996) study did not support these notions. Similarly, politeness theory suggests politeness strategies are crafted to indirectly communicate messages that would otherwise threaten face, but Afifi and Lee's (2000) study suggests there was a positive relationship between politeness and directness. In both studies, only a one-item measure was used. Infante et al. (2003) explains that language is abstract, arbitrary, and culturally and contextually dependent. Therefore, a lot of meaning can be lost in language. Afifi and Lee and Kellerman and Shea may have generated the results they did because words such as "polite, effective, and directness" are abstract and can have different meanings for different subjects.

In Goldsmith's programmatic research on politeness theory and support strategies, some meaningful conclusions were drawn, but the methodological choices were not always desirable, and may be the reason this programmatic research on support began to veer away from politeness theory (Goldsmith, 1999, 2009; Goldsmith et al., 2012). The relationship between support strategies and face management was not what was predicted by the authors, but this may be due to two methodological choices made for the studies. In one study, subjects were recorded giving support for hypothetical scenarios and these support messages were used as stimuli in a subsequent study. The stimuli was not based upon strategies proposed by politeness theory and provides little insight as to the effectiveness of the strategies in relation to cooperation. In

another study, the authors compared subjects' perceptions of politeness after exposure to messages indicative of one of the four broad approaches to politeness (bald-on-record, positive/negative redress, and bald-off-record) but did not compare perceptions after exposure to face saving and face threatening messages. Again, data that would be useful in comparing the influence of polite and impolite messages on cooperation was not collected and therefore cannot provide support for or against the relationship between the strategies proposed by politeness theory and cooperation (Brown & Levinson, 1987).

Future Research

Previous research on politeness theory does not provide support for or against the validity of face management strategies because either the strategies were not used or they were used but not pretested nor described in detail. Politeness theory proposes specific strategies (i.e., joking, inclusive language, threats, etc.) that should create either polite or impolite perceptions of the message and currently, these strategies are the most valid and reliable indicators of polite and impolite messages. Future research would be advised to generate messages exemplifying the strategies proposed by politeness theory, measure internal consistency of the exemplars, and measure differences in variables after exposure to face saving or face threatening messages. Attention to paralinguistic aspects of the messages are of the utmost importance to control due to the ease with which tone, pitch, rate, and intonation can influence perceptions of politeness (Attardo, 1997; Goldsmith, 1999). Before research related to politeness and goal-achievement can be developed and implemented, research must provide empirical support that the various face-saving and threatening acts are reliable and valid indicators of their respective face saving or threatening constructs. Therefore, the current study begins by developing exemplars of strategies and presenting a conceptual model that hypothesizes the exemplars, which are

representative of politeness theory strategies, are valid and reliable indicators of their respective politeness type.

View the exemplars that were created based on the strategies proposed by politeness theory as well as their face and speech type below (see Table 1) as well as the hypothesized conceptual model (see Figure 1).

The following hypotheses specify individual concepts represented by the path model.

H1: Positive face saving strategy exemplars are valid and reliable indicators of positive face-saving goals.

H2: Positive face threatening strategy exemplars are valid and reliable indicators of positive face-threatening goals.

H3: Negative face saving strategy exemplars are valid and reliable indicators of negative face-saving goals.

H4: Negative face threatening strategy exemplars are valid and reliable indicators of negative face-threatening goals.

Shame

This study hypothesizes shame mediates the politeness-cooperation relationship. Shame is conceptualized as experiences of humiliation, guilt and social rejection caused by aversive social stimuli (Dickerson & Kemeny, 2004; Rusch et al., 2007). Shame is an emotion elicited from a physiological reaction induced by psychological evaluations of threat in the environment (Afifi et al., 2011; Birditt et al., 2015; Dickerson & Kemeny, 2004). Threats to survival can be understood as proximal or distal, with proximal threats being immediate and physical (such as a person with a gun) and distal threats being of a more distant, psychological nature (such as humiliation) (Dickerson & Kemeny, 2004).

Table 1. *Speech Act Exemplifiers.*

Item Number	Face Type	Speech Type	Strategy	Item
1	Positive	Saving	Claim common ground; Exaggerated intonation, exaggerated modifiers	It was an absolutely marvelous attempt, however we were hoping for items that were a little more specific and creative than we have seen from this list.
2	Negative	Saving	Communicate S's want not to impinge on R; Redress other wants of R; Go on record as incurring a debt	We realize this is a large task, and we thank you for your cooperation.
3	Positive	Threatening	Acts that show indifference or agent is not cared about; Expressions of violent emotions	It is extremely frustrating that more thought and creativity was not put into these items, as it is very important to this study.
4	Positive	Saving	Claim common ground; Use in-group identity markers; jargon, address forms (buddy mate, pal), low power distance, in group dialect	All titles aside, from person to person we wanted to provide you with some feedback.
5	Negative	Saving	Don't coerce R; Give deference; Convey R is of higher social standing, humble self, indicate R's wants are greater than mine	We could not complete our research without you!
6	Positive	Saving	Convey S and R are Cooperators; Assert knowledge of concern of R's wants; Show alignment between wants	I know you want to do well on this list, so you should put just a little more creativity into it.

Table 1. *Continued.*

Item Number	Face Type	Speech Type	Strategy	Item
7	Positive	Saving	Claim common ground; intensify interest in R; Dramatic story, stress sincerity of S's good intentions, increase interests of R's conversational contributions	We know you put a lot of effort into this list and we think you will really succeed at your next attempt.
8	Negative	Saving	Communicate S's want not to impinge on R; State the FTA as a general rule	Subjects generally need to focus on increasing how specific their items were and how much creativity they used.
9	Positive	Threatening	Acts that show indifference or agent is not cared about; Irreverence, mention of taboo topics	It may be an issue with your intelligence on why you did not generate a more creative, meaningful list of items.
10	Positive	Saving	Convey S and R are cooperators; Be optimistic	You'll be happy to hear everyone who has typed up their ideas has done well.
11	Positive	Saving	Fulfill R's wants; Give gift to R; Sympathy, understanding, cooperation	Thank you for your cooperation and let us know if there is anything we can do to help you.
12	Negative	Saving	Communicate S's want not to impinge on R; Apologize, indicate reluctance, beg forgiveness, admit impingement, give overwhelming reasons	We're sorry to say anything negative, and we know it is a lot to ask. Please don't take it personally as we continue with the feedback.
13	Negative	Threatening	Acts that put pressure on the future act of an agent; Threats/warning/dares	We warn you that not all responses will be included in the data analysis.

Table 1. *Continued.*

Item Number	Face Type	Speech Type	Strategy	Item
14	Negative	Threatening	Acts that put pressure on the future act of an agent; Reminders	Remember, this task if very important to us.
15	Positive	Saving	Convey S and R are cooperators; Offer/promise; Demonstrate good intentions in satisfying R's positive-face wants	We promise you can do it.
16	Positive	Threatening	Acts that show indifference or agent is not cared about; Bring up bad news about R or good news about S	We have bad news about your items.
17	Negative	Threatening	Put agent in debt; Offers/promises	Participating in research and doing well will make you a desirable job candidate in the future.
18	Positive	Saving	Claim common ground; Notice/attend to R's interests, ants, needs, include self, joke	Thank you for being part of our research team, we know it's not always the easiest team to be apart of, haha.
19	Negative	Threatening	Acts that put pressure on the future act of an agent; Orders/requests)	Put in more effort when you type this list up.
20	Negative	Saving	Don't coerce R; Be pessimistic	We know this task might seem frustrating.
21	Negative	Saving	Communicate S's want not to impinge on R; Impersonalize S and R; Avoid I/you, passive voice, substitute one for you, plurals, past	When one does this task, it is never easy.

Table 1. *Continued.*

Item Number	Face Type	Speech Type	Strategy	Item
22	Positive	Saving	Claim common ground; Raise common ground; Gossip, small talk, speak with equality frame, past tense, require yes answer	Your items were much better than some of the others we have seen.
23	Negative	Threatening	Negative evaluation of agent; Expressions of disapproval, criticism, contempt, ridicule, complaints, reprimands, accusations, insults in any way.	The items on this list were not specific, creative, or clever in any way.
24	Positive	Threatening	Acts that show indifference or agent is not cared about; Misidentification	Perhaps your items were not as creative as we were hoping because your education did not focus on such skills.
25	Negative	Saving	Be direct; Don't presume/assume; question/hedge	We believe that if you were to put in more creativity and specificity, you will probably be able to do really well on the next task.
26	Positive	Saving	Convey S and R are Cooperators; Give reasons	We really want to show the students at this university are just as capable as students from other universities, which is why we are giving you a hard time.
27	Negative	Threatening	Acts that put pressure on the future act of an agent; Suggestions/advice	We advise you type this list up using more creative thinking skills.
28	Negative	Saving	Don't coerce R; Minimize the imposition	We just ask for one page for your next response.

Table 1. *Continued.*

Item Number	Face Type	Speech Type	Strategy	Item
29	Negative	Threatening	Negative evaluation of agent; Contradictions, disagreements, challenges	We challenge you to put in more thought to these items.
30	Positive	Saving	Claim common ground; avoid disagreement, token agreement, psuedo-agreement, white lies, hedging opinions	It's not that we disagree with your items, but we suggest you think outside of the box with some of them.
31	Negative	Threatening	Desire of goods; Compliments, expressions of envy or admiration	We wish we weren't as invested as we are, but we hope you can be invested too.
32	Positive	Threatening	Acts that show indifference or agent is not cared about; Non-cooperation in activity	Although we wanted to provide specific feedback, it is not possible to do this because the items were not specific themselves.
33	Negative	Saving	Be direct; Be conventionally direct	To get to the point and not waste your time, we want you to focus more on creativity and being specific in your next response.
34	Negative	Threatening	Desire of goods; Expression of emotion	We are anxiously waiting to read your next responses.
35	Positive	Threatening	Negative evaluation of agent; Expressions of disapproval criticism, contempt, ridicule, complaints, reprimands, accusations, insults)	This list does not meet our expectations and we were disappointed to read it.
36	Positive	Threatening	Negative evaluation of agent; Contradictions, disagreements, challenges	We do not think you much time or effort into your list.

Table 1. *Continued.*

Item Number	Face Type	Speech Type	Strategy	Item
37	Positive	Saving	Claim common ground; Exaggerate interest/approval/sympathy with R	We really appreciate your participation and we know it's difficult to list items in a specific and creative way when you are limited in time.
38	Positive	Threatening	Negative evaluation of agent; Contradictions disagreements, challenges	Think about what someone who is thriving and doing well for themselves might want to bring.

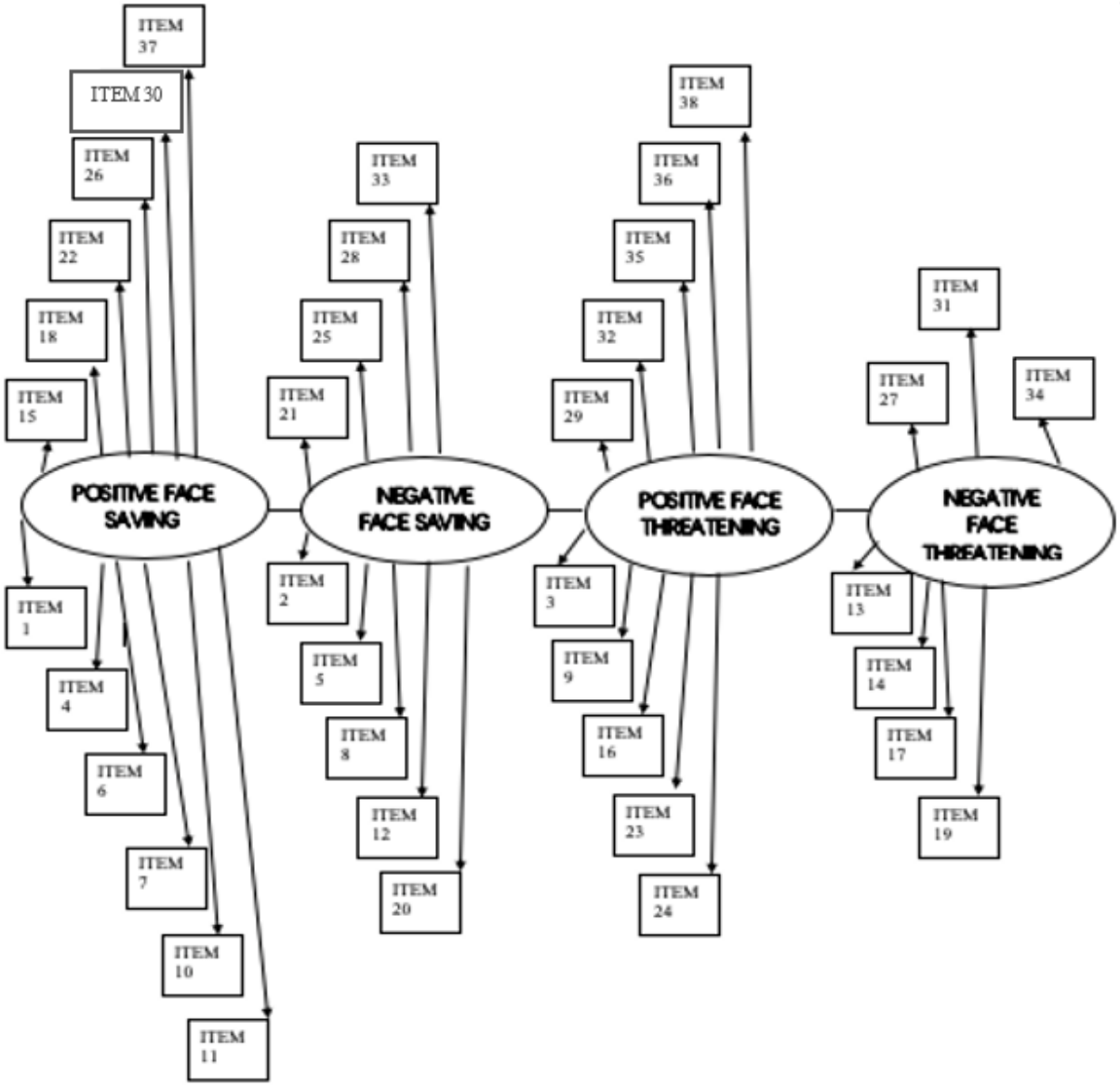


Figure 1. Conceptual Model of Types of Politeness and Indicators.

When distal threat is detected, the Hypothalamic-Adrenal-Pituitary (HPA) axis is activated and cortisol is released (Dickerson & Kemeny, 2004). When psychological or physiological threat is perceived in the environment, the neuroendocrine system works together to restore the body to homeostasis (Afifi et al., 2011; Birditt et al., 2015; Dickerson & Kemeny, 2004). Upon detection of an aversive stimulus, the prefrontal cortex and thalamus communicate with the limbic system, including the amygdala, which in turn stimulates the hypothalamus to release corticotrophin releasing hormone (CRH) (Afifi et al., 2011). Birditt et al., 2015; Dickerson & Kemeny, 2004). CRH is a neuropeptide, consisting of amino acids, which signals to the secretory cells of the pituitary gland to release adrenocorticotrophic hormone (ACTH), a peptide that activates the adrenal gland and causes the second of three layers, the adrenal cortex, to release cortisol (Afifi et al., 2011; Birditt et al., 2015; Dickerson & Kemeny, 2004). Cortisol is a part of the steroid family and once released, disperses through the vascular system, and through the blood, sends "fuel" to necessary bodily processes, such as the cardiovascular system and anti-inflammatory processes, and inactivates unnecessary systems of the body, such as the digestive and reproductive systems (Afifi et al., 2011; Birditt et al., 2015; Dickerson & Kemeny, 2004).

Inconsistent findings of HPA axis activity, indicated by elevated cortisol levels, characterized much psychological and physiological literature, sparking Dickerson and Kemeny (2004) to conduct a narrative review, specifically a meta-analysis of studies, meeting certain criteria, of literature related to cortisol levels. Dickerson and Kemeny (2004) filtered through HPA axis activity literature and selected studies that were conducted in the laboratory, and met other criteria, such as being written in English. Through this filtering process, they gathered 208 usable studies, generating a sample size of thousands of subjects. They calculated the overall effect size and coded for variability in the study such as, type of stressor (performative or

cognitive), time of day (before 12pm or after 12pm), method of analysis (blood, urine, or salvia), as well as other important characteristics of the study, such as whether the situation was controllable and whether there were social evaluative properties to the study. They concluded social threat and uncontrollability were the two characteristics of the studies most strongly associated with increased levels of cortisol (Dickerson & Kemeny, 2004). Social evaluation, also understood as social threat, is perceived when the central goal of positive self-presentation and social acceptance is threatened (Dickerson & Kemeny, 2004; Gruenewald et al., 2004). Social threat can be induced methodologically through the presence of an audience, permanent video recording, and/or through commentary about aspects of the performance unrelated to the outcome, such as comments about running out of time or completing the task differently than other subjects (Dickerson & Kemeny, 2004; Gruenewald et al., 2004). Uncontrollability is perceived when participants feel the outcome of the task could not be influenced by their actions (Dickerson & Kemeny, 2004; Gruenewald et al., 2004). Uncontrollability can be induced methodologically through giving false feedback about the outcome of the task as well as making the task impossible to complete (Dickerson & Kemeny, 2004; Gruenewald et al., 2004).

Social Self-Preservation Theory

Through this meta-analysis, social self-preservation theory was generated and supported. Social self-preservation theory posits perceptions of the social self in positive regard with others is a central goal for humans due to evolutionary and survival value (Dickerson & Kemeny, 2004; Gruenewald et al., 2004). Social self-preservation theory also posits when the social self is not positively regarded, or the self is not in control of outcomes, subsequent physiological stress

responses become activated, such as the HPA axis (Dickerson & Kemeny, 2004; Gruenewald et al., 2004).

Social self-preservation theory has been applied to contexts such as physical appearance and identity threat (Martin-Ginis et al., 2012; Townsend et al., 2011). Upon variations of social evaluation to a female's body and physical performance, cortisol levels increased in the group characterized by higher levels of social threat (Martin-Ginis et al., 2012). Similarly, women who perceived chronically high levels of sexism had higher cortisol levels, in comparison to the group exposed to neutral statements (Townsend et al, 2011).

Experiencing a rise in circulating cortisol is generally linked to a negative emotional experience, particularly when caused by the perception of a negative social evaluation or an uncontrollable situation (Dickerson & Kemeny, 2004; Gruenewald et al., 2004; Martin-Ginis et al., 2007; Townsend et al., 2011). Theoretically, a link between cortisol levels and increased experiences of disstress is prevalent; cortisol is often referred to as the “stress hormone” (Dickerson & Kemeny, 2004; Gruenewald et al., 2004; Martin-Ginis et al., 2007; Townsend et al., 2011). However, as research on cortisol and emotional experiences progresses, increased cortisol levels have been shown to have an unstable relationship with experiences of distress and have a more stable relationship with experiences of shame (Moya-Albiol et al., 2013). Specifically, when subjects were evaluated negatively on the outcome of their projects, their cortisol levels were higher, in comparison to those whose projects were evaluated positively, and these higher cortisol levels were associated with feelings of shame (Moya-Albiol et al., 2013). In fact, ratings of self-compassion, a psychological concept thought to be the opposite of shame, were found to be negatively associated with cortisol levels after exposure to psychological threat (Breines et al., 2015).

Subjects who rated themselves as being more self-compassionate had lower cortisol levels after exposure to psychological threat, in comparison to those who rated themselves as being less self-compassionate. Self-compassion was conceptualized as having empathy, consideration, and forgiveness for one's own self (Breines et al., 2015). This concept supports social self-preservation theory in that self-compassion, being the opposite of shame, likely acts as a protective factor, or buffer, against psychological threat, even if the threat is generated from internal dialogue rather than an external source (Breines et al., 2015). The presence of a positive association between cortisol levels and experiences of shame throughout cortisol literature leads to the conclusion that psychological threats, such as face threatening acts, are likely associated with reported experiences of shame. Moving forward, this study assumes a positive relationship between biological markers of stress and experiences of shame. Although it is not ideal practice to assume a relationship, this variable was unable to be measured and therefore this assumption is required.

Social self-preservation theory proposes perceptions related to social interaction and freedom to act are associated with cortisol activity, which is ultimately associated with experiences of shame (Dickerson & Kemeny, 2004). It is also proposes perceptions of the ability to act freely have the greatest association with cortisol activity (Dickerson & Kemeny, 2004). Politeness theory proposes the degree to which communication interactions induce these same perceptions is related to the degree to which a message is perceived to be polite (Brown & Levinson, 1987). Based upon this logic, the following hypotheses are proposed:

H5: Subjects in face saving conditions will report statistically significantly lower levels of experiences of shame in comparison to subjects in the face threatening conditions.

H6: Subjects in the negative face threatening condition will report statistically significantly higher levels of experienced shame in comparison to subjects in the positive face threatening condition.

Cooperation

Defining Cooperation

In fields such as Evolution and Human Behavior, cooperation is defined generally as behavioral coordination (Manson et al., 2013). More specific conceptualizations include definitions characterized by goal achievement. For example, Grujic et al. (2014) describes cooperation as the social process by which humans are cohesive through working together and achieving outcomes. Further, Grujic et al. (2014) explains that cooperation involves the sacrifice of wants and needs for the functioning of the collective society. Similarly, O'Brien (1968) conceptualizes cooperation as an integrative effort aimed at achieving or maintaining desired outcomes. When understood together, these conceptualizations suggest cooperation is the alignment of human behavior based upon the needs of the whole rather than the needs of the individual.

In much of the research, cooperation has been measured through a game called prisoner's dilemma (Cuesta et al., 2018; Gracia-Lazaro et al., 2012; Grujic, 2014), or a game with a similar premise. Prisoner's dilemma is derived from game theory and includes two players can achieve varying levels of payoffs (Gracia-Lazaro et al., 2012). The highest level of payoff for partner A can be achieved when partner B agrees to cooperate and partner A defects (decides not to cooperate). The second highest level of payoff for partner A can be achieved when both partners agree to cooperate. The lowest levels of payoff for partner A are achieved when either both partners defect or partner A agrees to cooperate and partner B decides to defect.

Through measuring cooperation using prisoner's dilemma, connections between cooperation and social order have been established (Gracia-Lazaro et al., 2012; Gruijc, 2014; Cuesta et al., 2018). Whether cooperation takes place between partners is sensitive to group dynamics (Gracia-Lazaro et al., 2012). In fact, Grujic et al. (2014) concluded the level of payoff, in terms of how much the highest level of payoff is worth, is irrelevant to the likelihood of partners cooperating or defecting. To further understanding on the group dynamics that lead to cooperation, another study concluded that the degree to which partners were homogenous on a variety of attitudes and demographics did not influence likelihood of cooperation, but rather the degree to which partners were perceived as likely to reciprocate cooperation was the main factor driving partner cooperation (Gracia-Lazaro et al., 2012). In addition, Cuesta et al (2018) concluded a positive reputation is required for partners to cooperate.

Beyond general findings related to cooperation and social order, cooperation has a place in the study of interpersonal communication research. Previous conceptualizations of cooperation include general phrases, such as, "behavior" and "efforts;" which suggest goal achievement is characterized strictly by behavioral goals. Using such general terminology overshadows the notion that there are specific communicative goals to include when understanding and studying cooperation, because achieving these goals contributes to the functioning of society. For example, interpersonal communication is characterized by goals such as relating, learning, helping, playing, and influencing (Solomon and Theiss, 2013).

Most cooperation and interpersonal communication literature is based upon the cooperative principle proposed by Grice (1975). Grice (1975) proposed the cooperative principle as the way in which humans use language to advance conversations and achieve goals. The cooperative principle includes four maxims: maxim of quality,

maxim of quantity, maxim of relevance, and maxim of manner. The maxim of quality refers to the degree of truthfulness in the message. That is, the content of the message reflects reality to the best of the sender's knowledge. The maxim of quantity refers to the amount of information in the message. That is, the spender will not include too much or too little information in the message. The maxim of relevance refers to the applicability of the message. That is, the sender's message has relevance to previous messages sent. The maxim of manner refers to the message's clarity is coherent and unambiguous. Grice theorized adherence to those four maxims advances conversations and is indicative of linguistic cooperation.

Interpersonal communication and cooperative principle literature is not empirically based and instead focuses solely on describing issues on the validity of framing communicative cooperation as adherence to Grice's maxims. Not only does this not provide a sound conceptual or operational definition of cooperation, it is also contradictory to politeness theory (Brown & Levinson, 1987). Politeness theory states at the heart of face saving, or polite, messages is "rational deviations" from the maxims proposed by the cooperative principle. This deviation from linguistic cooperation is a developed area of study and is supported in the literature (Fraser, 1990; Lakoff, 1979). Lindbloom (2001) explains that politeness is characterized by rational deviation from the cooperative principle, labeled conversational implicatures. Consider the following example. A driver pulls over to the side of the road and asks a pedestrian where the nearest gas station is located. Rather than answer that question, the pedestrian responds with, "I have some full gas cans at my house I will go get for you." Technically, this answer violates the maxim of relevance because the pedestrian did not answer the questions of where the closest gas

station was located. However, the pedestrian committed a conversational implicature because it was a more helpful, considerate (perhaps even more polite) answer (Lindbloom, 2001).

Although not empirical studies, several attempts have been made to reconcile this contradiction. Attardo (1997) explains that in politeness theory, Brown and Levinson were referring to different types of cooperation. Attardo (1997) divides cooperation into linguistic cooperation (locutionary) and extra-linguistic cooperation (perlocutionary). Attardo defines linguistic cooperation as adherence to the cooperative principle and defines extra-linguistic cooperation as all other cooperation, including topic agreement, face management, accommodation, and physical carrying out of tasks. Attardo argues that the contradiction in politeness theory can be rectified through the idea that politeness strategies violate linguistic cooperation but increase extra-linguistic cooperation. Similarly, a scholar named Ladegaard was observing and transcribing young student/teacher conversations and concluded students could be linguistically cooperative but paralingustically uncooperative. For example, Ladegaard observed that student cooperation with teachers was characterized by contextual factors, such as turntaking, non-interruptions, and voice modifications, rather than linguistic cooperation. Therefore, to address the conflicting relationship between politeness and cooperation, the conceptualization of cooperation needs to be developed and refined to encompass both aspects of what politeness theory assumes.

Conceptualizing cooperation, in relation to interpersonal communication studies, involves categorizing cooperation into paralinguistic and behavioral cooperation (Attardo, 1997; Ladegaard, 2009). Paralinguistic cooperation is conceptualized as aspects of speech acts, other than language, aimed at achieving goals (Ladegaard, 2009). Behavioral cooperation is referred to as the act of completing a request within a given time period (Beaulieu et al., 2013; Kellerman &

Shea, 1996). This definition is synonymous with compliance (Marwell & Schmidt, 1967). Studying politeness theory speech acts and compliance is a relevant topic of research because varying message characteristics have been demonstrated to have an effect on compliance (Marwell & Schmidt, 1967). For example, message characteristics such as persistence and repetition, number of people presenting the message, favorable perceptions of the message and sender, guilt, door in the face (sequence of planned messages; large request and then moderate request), and placebic information (fake reasons to comply) (Boster et al., 2009) have all been associated with varying levels of compliance.

As stated in the introduction, this study conceptualizes cooperation as alignment of human behavior, based on the needs of the whole rather than the needs of the individual, and consists of behavioral and communicative components (Attardo, 1997; Giles et al., 2007; Goldsmith et al., 2012; Grujic et al., 2014; ; Laadegard, 2009; Manson et al., 2013; Obrien et al., 1968) The communicative components are labeled paralinguistic cooperation and include communication acts such as turn-taking, reciprocity, agreement, accommodation, non-interruptions, and adherence to face wants (Attardo, 1997; Ladegaard, 2009). The full list of items included in this model (see Table 2) as well as an hypothesized conceptual model of speech acts that indicate paralinguistic cooperation can be viewed below (see Figure 2).

Shame and Cooperation

Cooperation is encompassed in the domain of social influence, which also includes areas of research such as persuasion, conformity, and obedience (Infante et al., 2003). Hovland et al. (1953) propose individual factors associated with a decreased likelihood to cooperate. These factors include aggressiveness, social withdrawal, and acute psychoneurotic symptoms, such as anxiety.

Table 2. *Paralinguistic Cooperation Items.*

Item Number	Item
1	Trying to make the person feel like they don't belong*
2	Agreeing with the person
3	Not speaking much*
4	Not interrupting
5	Interrupting*
6	Not reciprocating interest level in the topic*
7	Mirroring the way the person behaves nonverbally
8	Trying to make the person feel free to do what they please
9	Trying to make the person feel free to choose what they speak about
10	Trying to be distinct in the way you behave nonverbally*
11	Not self disclosing when the other person self discloses*
12	Not letting the other person have a chance to speak in the conversation*
13	Trying to make the person feel as though they belong
14	Self disclosing when the other person self discloses
15	Taking turns in the conversation
16	Reciprocating interest level in the topic
17	Trying to make the person feel well liked
18	Trying to make the person feel obligated*
19	Trying to be distinct in the words you use*
20	Mirroring the way the person speaks

Table 2. *Continued.*

Item Number	Item
21	Disagreeing with the person*
22	Trying to make the person feel controlled*

*Note: *=negative valence*

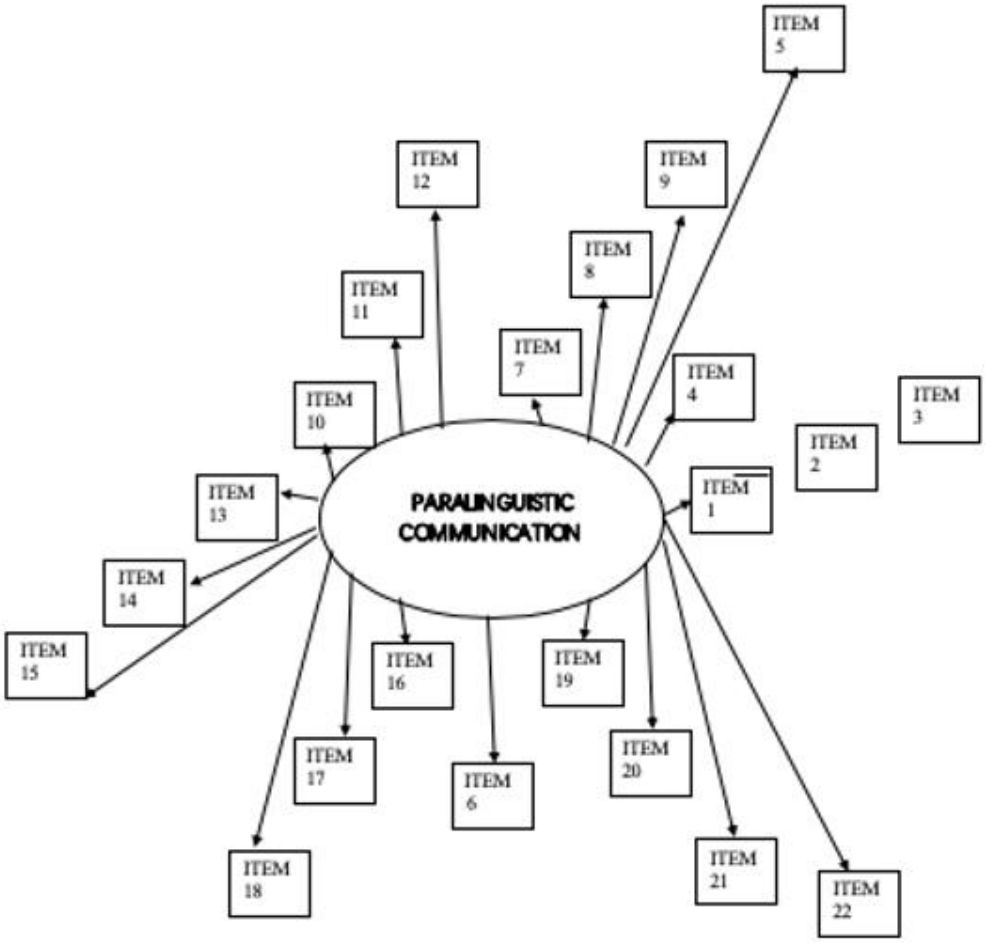


Figure 2. A conceptual model of Paralinguistic Cooperation.

Likelihood to cooperate is linked to emotional experiences, caused by physiological responses (Ditzen et al., 2009; Birditt et al., 2015). Ditzen et al. (2009) conducted a study on physiology and conflict and found that cortisol and oxytocin had an inverse relationship. Oxytocin is a "social hormone," released by the paraventricular nucleus of the hypothalamus, and is positively associated with social approach behaviors such as cooperation, attachment, empathy, perspective taking, and prosocial behavior (Floyd, 2006). Empathy, particularly empathy for one's self, was associated with lower cortisol levels and lower levels of shame when exposed to psychological threat (Breines et al., 2015). Increased cortisol levels are associated with antisocial behaviors such as withdrawal, inaction, and emotional distress (Afifi et al., 2011). Based upon the idea that cortisol levels have a positive relationship with experiences of shame and experiences of shame, have a negative relationship with cooperation, a conceptual path model is proposed (see Figure 3). This model test the claims made throughout this literature review regarding politeness, shame, and cooperation. Specifically, this model hypothesizes politeness exerts causal force onto experiences of shame, which in turn exerts causal force onto both paralinguistic cooperation and behavioral cooperation. The specific items used to measure shame, behavioral communication, cooperative communication, and uncooperative communication will be presented in the experiment, study 3.

Should the model fail, hypotheses 5-13, which were presented throughout the literature review as well as below, are individually tested using mean comparison and correlational analyses. Tests of these hypotheses are considered post-hoc analyses, because should the hypothesized path model yield a strong fit, the fit statistics would subsequently address and provide support for the following hypotheses:

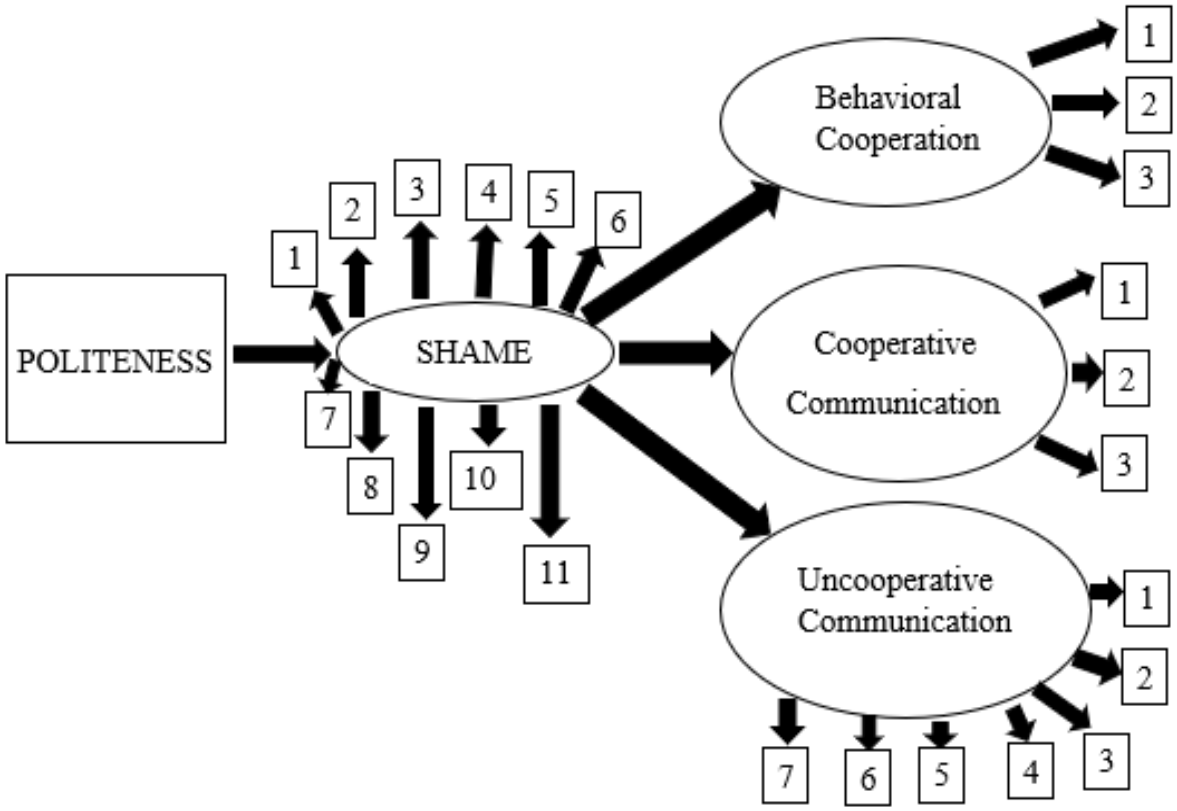


Figure 3. Experimental Conceptual Model.

H7a: Subjects in the polite conditions report statistically significantly higher levels of intended paralinguistic cooperation in comparison to subjects in the impolite conditions.

H7b: Subjects in the polite conditions report statistically significantly lower levels of intended uncooperative communication in comparison to subjects in the impolite conditions.

H8: Subjects in the polite conditions report statistically significantly higher levels of behavioral cooperation in comparison to subjects in the impolite conditions.

H9: Subjects in the polite conditions report statistically significantly higher levels of intended behavioral cooperation in comparison to subjects in the impolite conditions.

H10: There is a statistically significant positive correlation between shame and intentions of uncooperative communication.

H11: There is a statistically significant negative correlation between shame and intentions of cooperative communication

H12: There is a statistically significant negative correlation between shame and behavioral cooperation.

H13: There is a statistically significant negative correlation between shame and intentions of behavioral cooperation.

Chapter 3: Pretest Methods

Study one was used to test hypotheses H1-H4 as well as subject the paralinguistic cooperation data to an exploratory factor analysis (EFA). Specifically, study one was used to develop feedback message stimuli that varied by politeness type (positive vs. negative) and politeness degree (presence vs. absence) and a measure of paralinguistic communication cooperation for the subsequent experiment. To collect this pretest data, study one utilized a 2x2 experimental design that exposed subjects to one of four possible conditions: positive face saving acts, positive face threatening acts, negative face saving acts, or negative face threatening acts. With regard to ease of comprehension, these conditions have been renamed with more intuitive labels. Positive face saving acts are labeled identity politeness, positive face threatening acts are labeled identity impoliteness, negative face saving acts are labeled autonomy politeness, and negative face threatening acts are labeled autonomy impoliteness. Subjects were then presented with a series of statements and asked to indicate the degree to which each statement would accomplish their type of politeness. The data were subjected to a confirmatory factor analysis (CFA) and the items fitting the model were used to develop scenarios for the subsequent experiment. To develop the paralinguistic communication cooperation measure, study one asked subjects to read a series of statements and rate the degree to which they considered the statement to be "communicatively cooperative." The data were subjected to an EFA that revealed two factors.

Subjects

This study received IRB approval and was comprised of N = 225 subjects who were recruited through network sampling. There were four possible conditions to which subjects were randomly assigned. Subject recruitment for this study was done so through computer-mediated

communication, in person, as well as by word of mouth. Those who participated in the study were also asked to recruit subjects from their own social networks. Subjects had to be at least 18 years of age and not be considered to be part of any vulnerable population. Due to the sampling type (i.e., using the researcher's network for data collection), specific demographic information was not collected to keep subjects anonymous and minimize identification possibilities.

Stimuli

Study one was a 2x2 factorial design. Factor one, politeness, consisted of two levels: identity politeness and autonomy politeness. Factor two, impoliteness, also consisted of two levels: identity impoliteness and autonomy impoliteness. The identity politeness condition (positive face saving) had 59 subjects, the identity impoliteness condition (positive face threatening) had 55 subjects, the autonomy politeness condition (negative face saving) had 51 subjects, and the autonomy impoliteness condition (negative face threatening) had 60 subjects. Characteristics of each of the conditions are described below in the "Stimuli" section. Each of the four conditions was characterized by a particular goal. The identity politeness condition's goal was to make the individual feel accepted and well-liked. The identity impoliteness condition's goal was to make the individual feel rejected and disliked. The autonomy politeness condition's goal was to make the individual feel uncontrolled and independent. The autonomy impoliteness condition's goal was to make the individual feel controlled and obligated. The exact scenario and instructions received by subjects can be viewed below (see Appendix A).

Measures

The measures in this study included politeness strategy exemplars, manipulation checks, and paralinguistic cooperation. Politeness strategy exemplars consisted of four sub-types that

correspond to the four politeness conditions. Each item presented in this study was measured using a seven-point Likert-type scale, ranging from strongly disagree (1) to strongly agree (7).

Politeness Acts

The politeness measures consisted of identity politeness exemplars, autonomy politeness exemplars, identity impoliteness exemplars, and autonomy impoliteness exemplars. To develop these items, politeness literature was reviewed and statements were crafted to exemplify the specific speech acts proposed by Brown and Levinson (1987). These speech acts are theorized to create the impression of their respective politeness type. All of the speech acts are listed in the literature review and the exemplars, as well as the corresponding specific speech acts and politeness type, can be viewed above (see Table 1).

As a whole, the measure consisted of 38 exemplars with 12 identity politeness exemplars, 10 autonomy politeness exemplars, nine identity impoliteness exemplars, and seven autonomy impoliteness exemplars. Identity politeness included exemplars such as, “It was an absolutely marvelous attempt, however we were hoping for items that were a little more specific and creative than we have seen from this list.” Identity impoliteness included exemplars such as, “It is extremely frustrating that more thought and creativity was not put into these items, as it is very important to this study.” Autonomy politeness included exemplars such as, “We realize this is a large task, and we thank you for your cooperation.” Autonomy impoliteness included exemplars such as, “Put in more effort when you type this list up.” All subjects were asked directly to rate the degree to which they agreed each of the 38 exemplars would accomplish the goal presented in their condition. The statements were counterbalanced as an aim to increase internal validity.

Paralinguistic Cooperation

Subjects were presented with 22 randomly ordered items intended to measure paralinguistic cooperation. These items were developed from communication cooperation literature presented in the literature review. For reference, communication cooperation is understood as an active, effortful process that includes sacrifice, accommodating, turn taking, reciprocity, and agreement (Attardo, 1997; Giles et al., 2007; Grujic et al., 2014; Ladegaard, 2009; Manson et al., 2013). Subjects were instructed to read each statement and rate the degree, on a Likert-type scale from 1 (strongly disagree) to 7 (strongly agree), to which they considered each speech act to be "communicatively cooperative." The items consisted of speech acts such as, "Agreeing with the person," "Self-disclosing when the other person self discloses," and "Reciprocating interest level in the topic." A full list of the speech acts can be viewed above (see Table 2). Eleven of the twenty-two items were reverse coded, as indicated with an asterisk.

Procedure

Upon agreement to participate in the study, subjects were electronically sent an anonymous link to click on and complete the survey. The first information subjects viewed was the Consent Form (see Appendix B). Continuing forward with the study indicated their consent. Subjects read a scenario, which was identical across conditions (see Appendix A). To summarize, these scenarios involved two students beginning their participation in a research study. They are asked to brainstorm a list of items they would bring with them to a deserted island. They are then told to submit their list to the "researcher" who will provided them with feedback. They were then presented with a researcher's goal that was specific to the condition to which they were randomly assigned (see Appendix A). After reading the goal, they were asked to rate the degree to which they agreed, on a seven-point Likert-type scale, each of the politeness

exemplars would achieve the researcher's goal. They were then presented with the paralinguistic cooperation measure and asked to rate the degree, on a seve-point Likert-type scale, the degree to which they agreed the speech act represented, "Communication Cooperation." Although a 5-item scale is typically used when utilizing Likert-type measures, the choice was made to include a 7-point scale to collect as detailed data as possible because this data is being pretested and subjected to an exploratory factor analysis that seve as stimuli/measures for a subsequent study. After completing the questionnaire, subjects were then thanked for their participation. Participation in this study took approximately 15-30 minutes.

Chapter 4: Pretest Results

Politeness data were characterized by Likert-type scale responses to the exemplars presented in the politeness acts measures. Data were subjected to a CFA that consisted of the four types of politeness as well as their respective exemplars (see Table 1). The resulting model is depicted below (see Figure 4). Recommended fit statistics suggest $p < .05$; CFI > .90; RMSEA < .08; and SRMR < .08 (Garson, 2009). The CFA indicated the model fit was not remarkable, but usable for the purpose of these data (Garson, 2009). Additional validity information will be collected in the experiment by measuring the degree to which subjects exposed to the polite conditions did in fact agree the feedback message was polite as well as by measuring the degree to which subjects exposed to the impolite conditions did in fact agree the feedback message was impolite. The fit statistcs can be viewed below (see Table 3). Although these data cannot succinctly provide support in favor of or against H1-H4, a moderate fitting model suggests the exemplars are indicators of their respective politeness condition. While there is some support these strategies are tapping into politeness, the theory behind why and how they represent politeness may need further thought.

The paralinguistic cooperation scale was subjected to an Exploratory Factor Analysis (EFA). Data were subjected to a 5-factor, 4-factor, 3-factor, and 2-factor EFA with Varimax rotation. As this factor analysis was done to explore the number of dimensions, as well as which items, would comprise paralinguistic cooperation, the choice was made to explore the data with each number of possible factors to determine which would best explain the data. Ultimately, the two factor extraction was used because it accounted for the most variance and was the most interpretable. The EFA yielded two factors nested within the paralinguistic cooperation scale: Factor one included the following paralinguistic characteristics: trying to make the person feel

Table 3. *Pretest Fit Statistics.*

Fit Statistics					
Chi-Square	p-value	df	SRMR	CFI	RMSEA
294.39	*.00*	*129*	*.07*	*.94*	*.08*

Standardized Regression Weights		
Positive Face Saving (Autonomy Politeness)	All titles aside, from person to person we wanted to provide you with some feedback (PSF 2; 4)	*.63*
	You'll be happy to hear everyone who has typed up their ideas has done well (PSF 5; 10)	*.56*
	Thank you for your cooperation and let us know if there is anything we can do to help you (PSF 6; 11)	*.67*
	We promise you can do it (PSF 7; 15)	*.65*
	Thank you for being part of our research team, we know it's not always the easiest team to be a part of, haha (PSF 8; 18)	*.71*
	Your items were much better than some of the others we have seen (PSF 9; 22)	*.61*
Positive Face Threatening (Autonomy Impoliteness)	The items on this list were not specific, creative, or clever in any way (PFT 4; 23)	*.90*
	It may be an issue with your intelligence on why you did not generate a more creative, meaningful list of items (PFT 2; 9)	*.92*
	It is extremely frustrating that more thought and creativity was not put into these items, as it is very important to this study (PFT 1; 3)	*.88*
	Perhaps your items were not as creative as we were hoping because your education did not focus on such skills (PFT 5; 24)	*.91*
	This list does not meet our expectations and we were disappointed to read it (PFT 8; 35)	*.93*

Table 3. *Continued.*

		Standardized Regression Weights
	We do not think you much time or effort into your list (PFT 9; 36)	*.93*
Negative Face Saving (Autonomy Politeness)	We realize this is a large task, and we thank you for your cooperation (NFS 1; 2)	*.65*
	We could not complete our research without you! (NFS 2; 5)	*.66*
	We're sorry to say anything negative, and we know it is a lot to ask. Please don't take it personally as we continue with the feedback (NFS 4; 12)	*.41*
	We know this task might seem frustrating (NFS 5; 20)	*.53*
	When one does this task, it is never easy (NFS 6; 21)	*.57*
Negative Face Threatening (Autonomy Impoliteness)	Put in more effort when you type this list up (NFS 4; 19)	*.90*
	We advise you type this list up using more creative thinking skills (NFS 5; 27)	*.44*
	We wish we weren't as invested as we are, but we hope you can be invested too (NFS 6; 31)	*.65*

Note. The first number in parentheses after the item indicates which number the item is in the condition and the second number indicates which number the item is in Table 1.

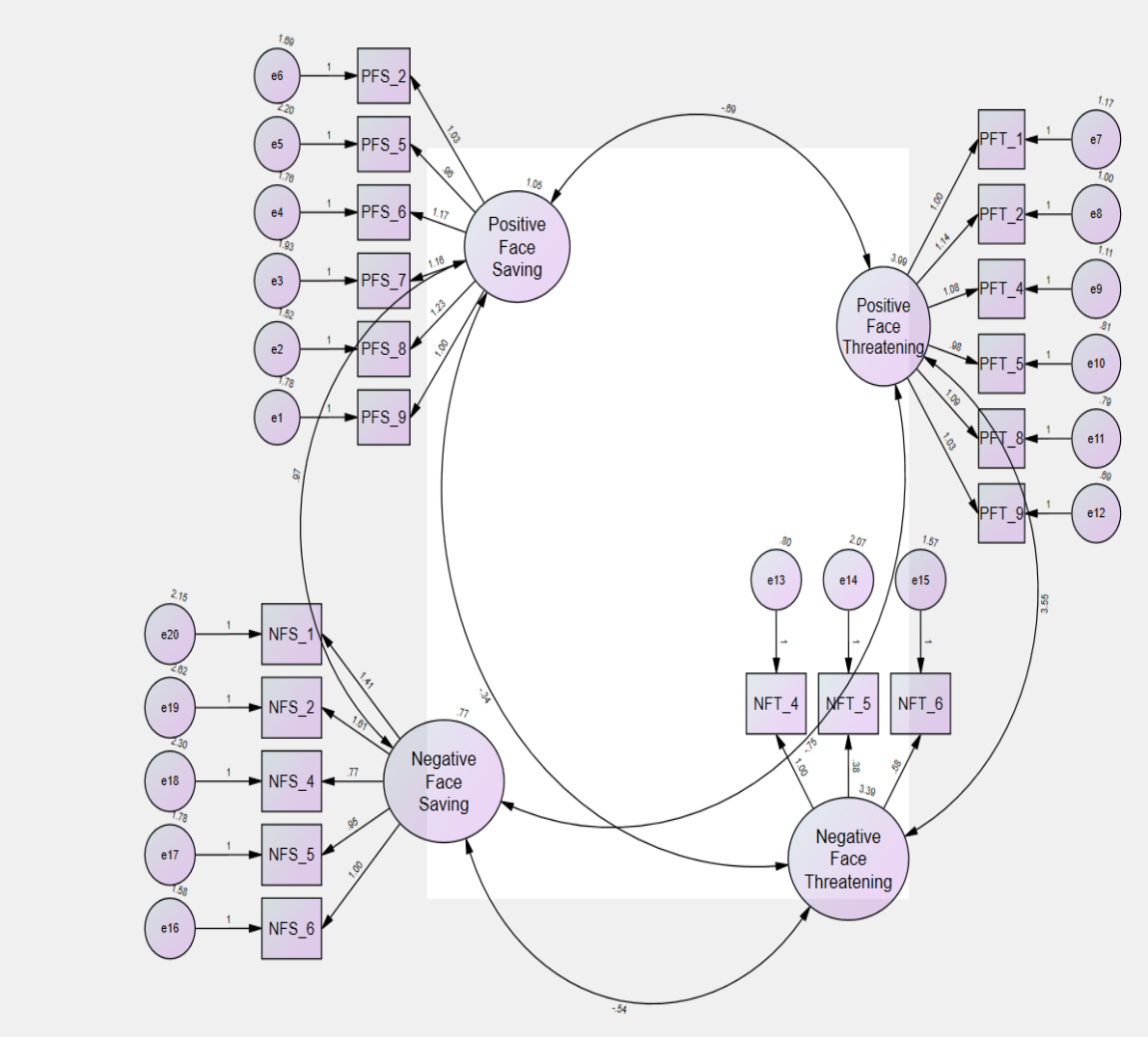


Figure 4. Tested Politeness Model.

Like they don’t belong, not speaking much, interrupting, not reciprocating interest level in the topic, not self-disclosing when the other person self-discloses, not letting the other person have a chance to speak in the conversation, and disagreeing with a person (items 1, 3, 5, 6, 11, 12 and 21). Factor two included the following paralinguistic characteristics: trying to make the person feel free to choose what they speak about, taking turns in a conversation, and reciprocating interest level in the topic (items 9, 15, and 16). The full list of paralinguistic cooperation items can be viewed above (see Table 2), the paralinguistic cooperation EFA Eigen-values can be (see Table 4) as well as a Scree Plot (see Figure 5) can be viewed below.

Table 4. *Paralinguistic Cooperation EFA Eigen Values.*

Rotated Component Matrix		
	Component	
Item	1	2
Trying to make the person feel like they don't belong* (1)	*.67*	*.31*
Agreeing with the person (2)	*-.06*	*.53*
Not speaking much* (3)	*.49*	*.03*
Not interrupting (4)	*.30*	*.56*
Interrupting* (5)	*.63*	*.32*
Not reciprocating interest level in the topic* (6)	*.58*	*.22*
Mirroring the way the person behaves nonverbally (7)	*.03*	*.26*
Trying to make the person feel free to do what they please (8)	*-.02*	*.49*
Trying to make the person feel free to choose what they speak about (9)	*.09*	*.65*
Trying to be distinct in the way you behave nonverbally* (10)	*.36*	*-.40*
Not self-disclosing when the other person self discloses* (11)	*.56*	*-.04*
Not letting the other person have a chance to speak in the conversation* (12)	*.74*	*.20*
Trying to make the person feel as though they belong (13)	*.37*	*.66*
Self-disclosing when the other person self discloses (14)	*.17*	*.38*
Taking turns in the conversation (15)	*.26*	*.65*
Reciprocating interest level in the topic (16)	*.40*	*.59*
Trying to make the person feel well liked (17)	*.21*	*.65*
Trying to make the person feel obligated* (18)	*.49*	*-.03*

Table 4. *Continued.*

Item	Component 1	Component 2
Trying to be distinct in the words you use* (19)	*.50*	*-.39*
Mirroring the way the person speaks (20)	*-.10*	*.35*
Disagreeing with the person* (21)	*.48*	*.03*
Trying to make the person feel controlled* (22)	*.64*	*.32*

Note. An asterisk* next to the item indicates it was reverse coded.

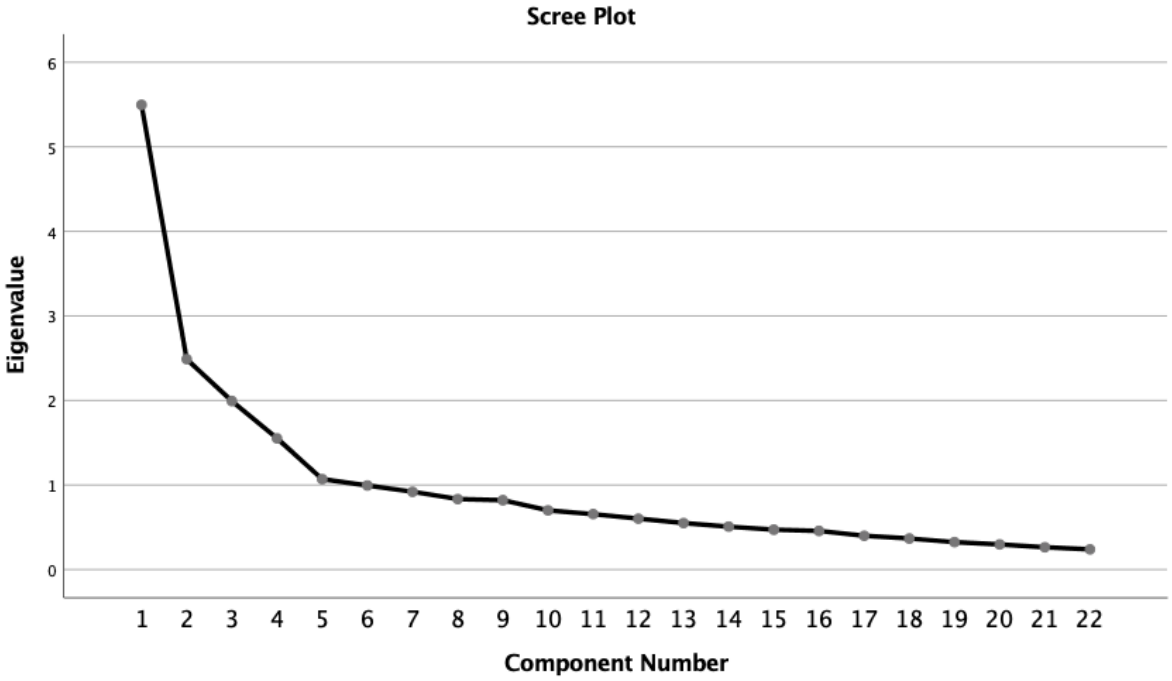


Figure 5. Cooperation EFA Scree Plot.

Chapter 5: Pretest Discussion

Results Discussed

Items were chosen based on the exemplars' ability to make intuitive sense as feedback in relation to one another. Autonomy impoliteness yielded three usable exemplars, the smallest number of exemplars for the four conditions. Because these data were used to create feedback for each of the four conditions in a subsequent study, to keep the conditions as similar as possible, with differences only existing in the politeness type, it was decided to use three exemplars to create all of the conditions. For the conditions that yielded more than three usable exemplars, each exemplar was analyzed and selected based on favorable qualitative properties. Favorable qualitative properties can be understood as items that make intuitive sense when combined with other items from the same condition that fit the model.

From Table 1, Identity politeness included the following exemplars: All titles aside, from person to person we wanted to provide you with some feedback; Thank you for being part of our research team, we know it's not always the easiest team to be a part of, haha; and Your items were much better than some of the others we have seen (items 4, 18, and 22). Autonomy politeness included the following exemplars: We realize this is a large task, and we thank you for your cooperation; We could not complete our research without you!; We know this task might seem frustrating; and When one does this task, it is never easy (items 2, 5, and 21). Identity impoliteness included the following exemplars: It is extremely frustrating that more thought and creativity was not put into these items; This list does not meet our expectations and we were disappointed to read it; and We do not think you much time or effort into your list (items 3, 18, and 36). Autonomy impoliteness included the following exemplars: Put in more effort when you

type this list up; We advise you type this list up using more creative thinking skills; We wish we weren't as invested as we are, but we hope you can be invested too (items 19, 27 and 31).

Through qualitiavely analyzing which items fit the model and which items did not fit the model, it appears the items that fit the model for both types of politeness were characterized by regard for the subject. The polite items that fit the model used terminology such as, "Thank you, you will be happy, you can do it, and we know…." The polite items that did not fit the model used terminology such as, "We want, think outside of the box, and focus more on…." Although all of the items were based on politeness strategies, the items that fit the model tended to be characterized by empathy and focus on how the individual feels rather than what the individual should do. The impolite items that fit the model, again, tended to attack the character of the subject rather than the work that was produced. The impolite items that did not fit the model tended to give explanations for why their work was rated poorly rather than attacking the individual personally. For example, the impolite items that fit the model included terminology such as, "We do not think you put time, we were disappointed, and we wish you could be invested." The impolite items that did not fit the model focused more on the list and less on the individual with terminology such as, "we are anxiously waiting for your next response, the items were not specific, and we have bad news about your items." The items that fit the polite conditions were characterized by regard for the individual and items that fit the impolite conditions were characterized by disregard for the individual on a personal level.

The two-factor exploratory factor analysis suggests paralinguistic cooperation is comprised of both the absence of uncooperative communication (factor one) and cooperative communication (factor two). For both the uncooperative and cooperative communication factors, the items that loaded onto their respective factors utilized more concerete terminology than the

items that did not fit the model. For example, items such as, “interrupting, agreeing, and not self-disclosing” were included in the model whereas items such as, “mirroring the way a person behaves non-verbally, trying to make the person feel obligated, and trying to be distinct in the words you use” did not load onto either the uncooperative nor the cooperative factor. The items that loaded onto one of the factors appear to be communication patterns that can be objectively observed and are less ambiguous than the items that did not load onto a factor.

Limitations

In hindsight, wording the instructions using face management terminology was not as beneficial as wording the instructions using simple polite vs. impolite terminology. It would have been more ecologically sound to use simple terminology and then theorize about why certain items loaded onto factors , versus using more complicated face terminology, which resulted in a moderate fitting model rather than a potential well-fitting model. Although the exemplars were developed from strategies forwarded in politeness theory, there are many abstract strategies that are difficult to develop as specific verbal messages. Given the sheer number of strategies, developing multiple messages specific to a given context creates other validity concerns. The limitation here lies within the exemplar’s perception. Although necessary, strategies were translated from a name (e.g., Joking) to a statement exemplifying the strategy. Variance in the researcher’s perception of how a strategy should be represented through an exemplar introduces noise and threatens the degree to which the intended stimuli and only the intended stimuli is influencing responses to measures. This is a threat to the internal validity of the items that fit the model, but ultimately, this is why pretest data were collected and analyzed before using these exemplars in the experiment.

Terminology is also a limitation in the data collected for the paralinguistic communication exploratory factor analysis. Subjects were asked to rate the degree to which they agreed each statement was considered, “Communicatively Cooperative.” This choice was made because the conceptual understanding of paralinguistic cooperation was developed based on reviewing literature for this study and not from previous conceptualizations that have empirical support. Therefore, data collected was based on a multitude of understandings of the phrase “Communicatively Cooperative,” rather than solely relying on the researcher’s interpretation of communicative cooperation. This is the reasoning behind the why this phrasing was chosen, however, this choice remains limiting in that the researcher’s interpretation of communicative cooperation is based on a thorough review of literature related to communication cooperation and subjects’ interpretation was based on any number of factors. It is an ambiguous phrase, which unfortunately introduces noise into the study and limits the validity of the data.

An additional limitation in the paralinguistic cooperation data is the overlap in the “reciprocating interest level” and “not reciprocating interest level” items on the cooperative and uncooperative factors, respectively. This item may present a covariance issue and additional data will need to be collected on this scale and subjected to a confirmatory factor analysis.

Future Research

Subjects were asked directly to rate the degree to which each exemplar would accomplish the goal presented by their condition. For reference, the identity politeness condition’s goal was to make the individual feel accepted and well-liked. The identity impoliteness condition’s goal was to make the individual feel rejected and disliked. The autonomy politeness condition’s goal was to make the individual feel uncontrolled and independent. The autonomy impoliteness condition’s goal was to make the individual feel controlled and obligated. It is unknown whether

these exemplars fit the model because the strategy is an inherently better indicator of politeness or if the exemplar was better constructed than other exemplars. For the purpose of generating feedback messages for the subsequent experiment, it is not reasonable to make a theoretical speculation as to why these items were the model of best fit. They are being used to create stimuli for the experiment and the data from that study should provide further information about the veracity of these items. Future research would be best served to re-examine the politeness exemplars and instructions. Specifically, additional exemplars for the strategies that fit the model should be added and the instructions should containimproved wording that instructs participants to choose items they perceive to be either polite or impolite rather than instruct participants using face terminology. With these changes implemented, future data can be analyzed for which items continue to load onto their respective factors.

Chapter 6: Cooperation Validation Methods

Paralinguistic communication EFA results from the pretest data suggested paralinguistic cooperation is comprised of two factors: uncooperative communication and cooperative communication. Factor one was comprised of all negatively valenced items from the paralinguistic cooperation items and therefore required further analysis, as negative items grouping together may be more of a statistical anomaly rather than theoretically meaningful (Zhang et al., 2016). Further, a redundant item appeared in both the uncooperative communication factor as well as the cooperative communication factor. The current study aimed to subject additional paralinguistic cooperation data to a confirmatory factor analysis.

Subjects

Subjects in this IRB-approved study were recruited through Mechanical Turk (MTurk). The study was advertised through the MTurk website and subjects who completed the survey with thoughtful responses received $1.00 (See Appendix C). Subjects had to be at least 18 years of age, English speaking, located in the United States, and have at least a 75% completion rate. The demographic descriptive statistics can be viewed below (see Table 5).

Measures

As stated above, one of the factors yielded by the EFA consisted of all negatively valanced items. Due to the phenomenon of negatively worded items tending load onto a factor in a CFA, this study consisted of the same 22 paralinguistic cooperation items, which were also counter-balanced with regard to internal validity (Zhang et al., 2016). This was done to lessen the likelihood the items loaded onto a factor by chance rather than by theoretical meaning. Items were presented in random order and with slight verbiage change to make the

Table 5. *Cooperation Validation Demographics.*

Factor		Frequency	Percentage	M	SD	Min	Max
Sample Size		*220*					
Gender							
	Male	*129*	*58.60%*				
	Female	*91*	*41.40%*				
Age				*38.38*	*12.39*	*21*	*74*
Ethnicity							
	White	*161*	*73.2%*				
	Black	*31*	*14.10%*				
	Asian	*11*	*5.00%*				
	Hispanic	*6*	*2.70%*				
	Pacific Islander	*1*	*.50%*				
	Native American	*5*	*2.30%*				
	Prefer Not To Answer	*2*	*.90%*				
	Other	*3*	*1.40%*				

items appropriate for the instructions and study context. In the pretest, subjects were asked to rate the degree to which they agreed the speech act presented would be considered "communicatively cooperative." To test the degree to which the items would continue load on a factor together, subjects in this study were asked to rate the degree to which they agreed each item represented their typical communication interactions. For the items to make sense, the speech acts were changed from wording such as, "Trying to make the person feel like they belong" to wording such as, "I try to make the other person feel like they belong." Eleven of these 22 items were reverse coded. Subjects responded to these items on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). To review the items that were included in the pretest as well as the items that were included in the path model, please refer back (see Table 2). The conceptual and tested path model can be viewed below (see Figure 6).

Procedure

Subjects who chose to participate in this study were redirected to an instructions page (see Appendix C). They were able to click an anonymous link to begin the study, which began with a consent form (see Appendix D). Continuing with the study indicated consent. Subjects who were not 18 or older were redirected to a rejection message (see Appendix E). Subjects were asked to reflect upon themselves and rate the degree to which they agreed the statement was true about them. Upon completion of the survey, subjects were thanked for their participation and given a code to input to receive their compensation. This study contained other measures, not included in this study, and therefore it took approximately 15 minutes to complete.

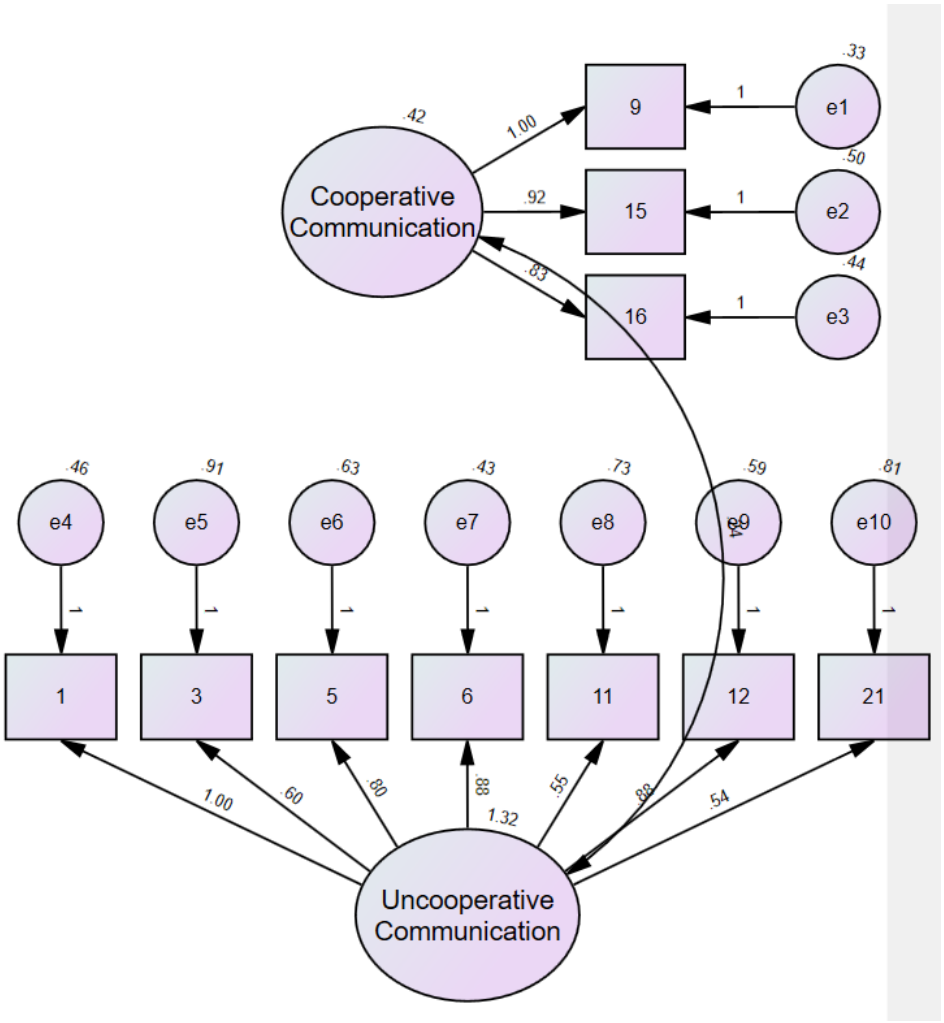


Figure 6. Conceptual and Tested Model of Paralinguistic Cooperation from Study 2.

Chapter 7: Cooperation Validation Results

These data were modeled according to the EFA data from the pretest. The model consisted of two factors, each an indicator of paralinguistic cooperation. Factor one included the following paralinguistic characteristics: trying to make the person feel like they don't belong, not speaking much, interrupting, not reciprocating interest level in the topic, not self-disclosing when the other person self-discloses, not letting the other person have a chance to speak in the conversation, and disagreeing with a person (items 1, 3, 5, 6, 11, 12 and 21). Factor two included the following paralinguistic characteristics: trying to make the person feel free to choose what they speak about, taking turns in a conversation, and reciprocating interest level in the topic (items 9, 15, and 16). Recommended fit statistics suggest $p < .05$; CFI > .90; RMSEA < .08; and SRMR < .08 (Garson, 2009) These factors as a two-dimensional measure of paralinguistic cooperation yielded a well-fitting model (Garson, 2009). The tested model can be viewed above (see Figure 6) and the fit statistics can be viewed below (see Table 6).

Table 6. *Cooperation Validation Fit Statistics.*

Fit Statistics					
Chi-Square	p-value	df	SRMR	CFI	RMSEA
60.27	*.00*	*34*	*.05*	*.97*	*.06*

	Standardized Regression Weights	
Cooperative Communication	Making the Person Feel Free to Choose What They Speak About (9)	*.75*
	Taking Turns in the Conversation (15)	*.64*
	Reciprocating Interest Level in the Topic (16)	*.63*
Uncooperative Communication	Trying to Make the Person Feel Like They Don't Belong (1)	*.86*
	Not Speaking Much (3)	*.59*
	Interrupting (5)	*.76*
	Not Reciprocating Interest Level in the Topic (6)	*.84*
	Not Self-Disclosing When the Other Person Self-Discloses (11)	*.60*
	Not Letting the Other Person Have a Chance to Speak in the Conversation (12)	*.80*
	Disagreeing with the Person (21)	*.60*

Chapter 8: Cooperation Validation Discussion

Results Discussed

These results suggest structural validity for a two-dimensional measure of the paralinguistic communication construct that encompasses both cooperative communication acts and the absence of uncooperative communication acts. This scale is used as a scale in the subsequent experimental study. Cooperative communication contains three indicators: trying to make the person feel free to choose what they speak about, taking turns in a conversation, and reciprocating interest level in the topic. From the items that measure cooperative communication acts, cooperative communication can be conceptualized as characteristics, other than content, of a linguistic interaction that actively promote conversation exchange. The items that indicate cooperative communication as well as the derived conceptualization of cooperative communication are consistent with previous literature on cooperation, an active, effortful process that includes sacrifice, accommodating, turn taking, reciprocity, and agreement (Attardo, 1997; Ladegaard, 2009; Grujic et al., 2014; Manson et al., 2013; & Giles et al., 2007).

This model suggests that not only does paralinguistic cooperation refer to cooperative communication, but also the lack of uncooperative communication. Uncooperative communication contains seven indicators: trying to make the person feel like they don't belong, not speaking much, interrupting, not reciprocating interest level in the topic, not self-disclosing when the other person self-discloses, not letting the other person have a chance to speak in the conversation, and disagreeing with a person. Although it may be tempting to argue uncooperative communication is simply the opposite of cooperative communication, uncooperative communication is an act in and of itself because it is an active process rather than a passive process (Grujic et al., 2014). Not actively cooperating is the opposite of cooperative

communication whereas uncooperative communication can be conceptualized as characteristics, other than content, of a linguistic interaction that actively impede conversation flow. Uncooperative communication is not simply the absence of cooperation but the act of being uncooperative and a construct that can stand alone (Brown & Levinson, 1987). This conceptualization of uncooperative communication is also consistent with previous literature defining uncooperative communication as disruption, indifference, and the infliction of a negative emotional state onto a conversational partner (Brown & Levinson, 1987).

This study was done, in part, to review CFA output and interpret whether the overlapping "reciprocating interest" and "not reciprocating interest" items posed a covariance issue that created an issue with the model fit. After subject the data to the CFA, it was determined the covariance between these two items did not pose a problem for uncooperative communication and cooperative communication as a two-dimensional measure of paralinguistic cooperation. One test cannot conclusively determine an item is not problematic, however it suggests it is reasonable to move forward with the predicted model as a measure of paralinguistic cooperation.

Limitations

This study was limited through gathering responses related to intentions of engaging in cooperative or uncooperative communication rather than directly measuring the acts themselves. Although this limitation introduces noise because what people may intend to do or think they would do in a situation is not always a 1:1 ratio with what is executed, it is an initial step toward being able to measure these two components of cooperation. Responding to items regarding intentions requires introspective self-knowledge and objective reasoning, which may not necessarily be characteristics that define the general population and therefore the data are limited. Observational data are a necessary next step for this scale.

Another limitation of this scale is the overlapping item that appears on both the cooperative communication factor and uncooperative communication factor. The item, "reciprocating interest level in the conversation" appears on the cooperative communication factor and "not reciprocating interest level in the conversation" appears on the uncooperative communication factor. Theoretically, cooperative and uncooperative communication are active processes and an argument can be made that these items are not just the opposite of one another, but are in fact different constructs. Consider the following scenario: Person A brings up a particular topic and person B makes an active effort to engage in the conversation and respond with meaningful interpersonal communication, rather than scripted, impersonal responses. This would be considered cooperative communication and reciprocating interest level in the conversation. Consider a second scenario: Person A brings up a particular topic; person B actively communicates disinterest in this topic and expresses a desire to stop or alter the communication interaction's direction. This would be considered uncooperative communication and not reciprocating interest level in the conversation.

Consider a third and final scenario: Person A brings up a particular topic and Person B neither actively engages nor actively disengages with the conversation but instead engages in scripted, impersonal communication. Communication, as described in the third scenario, is the true opposite of both cooperative and uncooperative communication. Both cooperative and uncooperative communication are active processes and the opposite of each type of communication is inactive, effortless, neutral communication. Theoretically, these constructs are sound. However, this poses an issue with measurement. Although careful consideration of the two constructs leads to the notion that neutrality is the true opposite of cooperative and uncooperative communication, participants responding to items on a scale may not engage in this

thought process. To address this issue, further tests of validity are necessary. Should a covariance issue arise and affect the measurement model, the item may have to be omitted from one of the factors.

Data collected to test this model had two deviations from the data collected for the EFA in the pretest study. This data was not put into context, rather subjects were asked to rate the degree to which they agreed the items were representative of their own typical communication patterns. This is a limitation to the data collection because it is a different context and the items were worded slightly differently than the items in the pretest. Although this is a limiting factor, the choice was made for this variation to test the degree to which items would load onto their predicted factors regardless of context. In addition to the wording of the items, the Likert-type scale was a 5-point scale rather than a 7-point scale like in the pretest. This generated less variability in responses than was able to be evaluated in the pretest and this limited the value of the data and would be reconsidered in the future.

Future Research

The results from this study had direct use for future research. However, this measure of paralinguistic cooperation requires further analysis to test for divergent and convergent validity. This model should be examined in conjunction with variables such as conflict management, accommodation, and behavioral cooperative communication traits to demonstrate validity (Boateng et al., 2018). These are useful variables to study in conjunction with cooperative communication because they include theoretically similar content. For example, conflict management includes five different types of conflict styles: obliging, dominating, compromising, collaborating, and avoiding (Jameson, 2004). Some of these styles should be positively correlated with paralinguistic cooperation and some should be negatively correlated with

paralinguistic cooperation. Future research on using this scale will need to review previous literature and utilize a scale that has empirical support for its validity.

To confidently measure cooperative and uncooperative communication rather than intentions, this study needs to be triangulated to increase the measure's validity, beginning with observation. This scale lays out specific communication acts that can be reasonably coded and observed and this is a necessary next step in validating the measure.

If the scale is subjected to a full validity portfolio and the measure is considered valid, meaningful data, utilizing the paralinguistic cooperation scale, can be collected and analyzed. Some meaningful areas of research may include research with younger children that examines relationships between paralinguistic cooperation and various psychosocial variables, such as intelligence, emotional stability, or socioeconomic status. Another possible fruitful area of research may be focused on behaviors associated with paralinguistic cooperation. As discussed in the literature review, various lingusitc characteristics have been studied in association with compliance (Marwell & Schmidt, 1967). Future research utilizing this scale may collect data to determine if there is any compliance gaining power when engaging in paralinguistic cooperation patterns, or, if there is a negative association between the presence of uncooperative communication and compliance.

Chapter 9: Experimental Methods

The objective of this study was to test a hypothesized model where politeness exerts causal force onto shame and in turn, shame exerts causals force onto both paralinguistic and behavioral cooperation (see Figure 3). Further, this model requires well-fitting measurement models for shame, paralinguistic cooperation, and behavioral cooperation for the overall path model to be tested. Due to the model failing, *post hoc* analyses were used to address the hypotheses individually. In addition to testing the hypotheses, when the hypothesized model failed, reasonable modifications to the model were made and tested to thoroughly examine the relationships among politeness, shame, and cooperation.

Subjects

Subjects in this study were recruited through Mechanical Turk (MTurk). The study was advertised through the MTurk website and subjects who completed the survey with thoughtful responses received $1.00 (See Appendix F). Subjects had to be at least 18 years of age, English speaking, located in the United States, and have at least a 75% completion rate. Those who were not at least 18 years of age were redirected to a rejection message (see Appendix E), The demographics can be viewed below (see Table 7).

Approximately 300 subjects were removed from the data set due to either incomplete responses or based upon the content of their 250-word essay. Responses were considered incomplete if five or more items were left blank. Responses were omitted based on their essay if their essay could be objectively recognized to be computer-generated, completely off topic or appeared multiple times throughout the data set. There is a slight possibility that some of the responses omitted were responses completed by people, however the chance that the majority

Table 7. *Experiment Demographics.*

Factor			Frequency	Percentage	M	SD	Min	Max
Sample Size			*277*					
	Four Conditions							
		Positive Face Saving (Autonomy Politeness)	*97*	*35.02%*				
		Positive Face Threatening (Identity Impoliteness)	*56*	*20.22%*				
		Negative Face Saving (Autonomy Politeness)	*57*	*20.58%*				
		Negative Face Threatening (Autonomy Impoliteness)	*70*	*25.27%*				
Gender								
	Male		*163*	*58.80%*				
	Female		*112*	*40.40%*				
Age					*34.98*	*10.31*	*18*	*70*
Ethnicity								
	White		*191*	*69.00%*				
	Black		*51*	*18.40%*				
	Asian		*15*	*5.40%*				
	Hispanic		*8*	*2.90%*				
	Native American		*8*	*2.90%*				
	Prefer Not To Answer		*1*	*.40%*				
	Other		*2*	*.70%*				

were computer generated was so much higher than the chance of omitting a valid response, that the researchers were comfortable omitting these responses.

Stimuli and Procedure

This IRB approved study utilized a 2x2 experimental design with the stimuli developed from the pretest. Subjects were randomly assigned to one of four conditions: identity politeness, identity impoliteness, autonomy politeness, and autonomy impoliteness. The condition to which each subject belonged was characterized by the type and degree of politeness of the feedback they received.

Subjects chose to participate in this study and upon choosing, they were redirected to an instructions page (see Appendix F). They were able to click an anonymous link and access a consent form (see Appendix G). Continuing with the study indicated consent. At the onset of the study, subjects were asked to think about and list 10 items they would bring with them to a deserted island. After entering their 10 items, subjects were told a researcher was looking over their items and would get back to them with how much improvement they needed as well as written feedback within the next five minutes. Subjects were made to believe they could be told their list needed no improvement, little improvement, moderate improvement, or major improvement. All subjects were told their list needed significant improvement, regardless of the content of their list. Indicating to all subjects their list needed major improvement served as the fixed face threat throughout all conditions.

A five-minute timer that counted down began while subjects waited. After three minutes and thirty seconds, a “next” button subtly appeared and subjects were able to continue to the next page where every subject was told they needed significant improvement with pre-determined

feedback that was based on the condition to which they belonged and not reflective of their actual list of items.

After reading the feedback, subjects were asked to write a 250-word essay on what items they would bring with them to a deserted island and why. The choice was made to simply ask subjects to write the essay rather than using any language that could potentially influence the number of words written, which could compromise the internal validity of the feedback messages (see Appendix H). Subjects then responded to a shame scale, behavioral cooperation items, paralinguistic cooperation scale, manipulation checks and demographic items. Upon completing the survey, subjects viewed a debriefing page (See Appendix I) that explained the rating and feedback were predetermined before they made their list and not reflective of the list they created. They were thanked for their participation and given a code to input to receive their $1 compensation. This study took approximately 15-30 minutes.

Measures

Shame

Descriptive statistics for all variables can be viewed below (see Table 8). The Shame measure was a bipolar-construct scale consisting of 11 items, which can be viewed below (see Table 9). The scale was created and validated by (Rusch et al., 2007). These data were subjected to a CFA which indicated items 3, 9, and 11 should be omitted from the measure for the best possible model fit. Although these fit statistics would not typically be acceptable, this is the best possible fit for the model (Garson, 2009). The shame CFA model can be viewed below (see Figure 7). The fit statistics can be viewed below (see Table 10).

Table 8. *Experiment Measure Descriptive Statistics.*

Measure	N	M	SD	Skewness	Kurtosis	Reliability
Shame	*276*	*2.80*	*1.27*	*.41*	*-.82*	*.90*
Number of Words	*276*	*102.80*	*91.20*	*1.84*	*5.10*	
Intentions of Complying	*276*	*4.07*	*.97*	*-1.11*	*1.19*	
Intentions of Writing	*276*	*4.26*	*.92*	*-1.41*	*2.06*	
Cooperative Communication	*276*	*3.73*	*.75*	*-.53*	*.51*	*.61*
Uncooperative Communication	*276*	*2.81*	*.88*	*.20*	*-.63*	*.84*

Table 9. *Shame Scale.*

Item Number	Item
1	Very Cool--Very Warm
2	Normal Heartbeat--Rapid Heartbeat
3	Pale—Flushed
4	Good—Bad
5	Clear—Confused
6	Content—Distressed
7	Calm--Highly Aroused
8	Being Sociable—Hiding
9	Talking—Being Quiet
10	No One Sees Me—Everyone Is Looking At Me
11	Discussing My Feedback With Others—Not Discussing My Feedback With Others

Table 10. *Experiment Measure Fit Statistics.*

	Chi-Square	p-value	df	SRMR	CFI	RMSEA
Shame						
	64.9	*.00*	*20*	*.11*	*.97*	*.09*
			Standardized Regression Weights			
			Cool—Warm (1)	*.45*		
			Normal--Rapid Heartbeat (2)	*.75*		
			Good—Bad (4)	*.86*		
			Clear—Confused (5)	*.85*		
			Content—Distressed (6)	*.82*		
			Calm—Highly Aroused (7)	*.88*		
			Being Sociable—Hiding (8)	*.71*		
			No one sees me—Everyone is looking at me (10)	*.60*		
Paralinguistic Cooperation						
	44.06	*.17*	*34*	*.05*	*.99*	*.03*

Table 10. *Continued.*

		Standardized Regression Weights
Cooperative Communication	Making the Person Feel Free to Choose What They Speak About (9)	*.60*
	Taking Turns in the Conversation (15)	*.60*
	Reciprocating Interest Level in the Topic (16)	*.57*
Uncooperative Communication	Trying to Make the Person Feel Like They Don't Belong (1)	*.80*
	Not Speaking Much (3)	*.49*
	Interrupting (5)	*.80*
	Not Reciprocating Interest Level in the Topic (6)	*.75*
	Not Self-Disclosing When the Other Person Self-Discloses (11)	*.64*
	Not Letting the Other Person Have a Chance to Speak in the Conversation (12)	*.73*
	Disagreeing with the Person (21)	*.37*

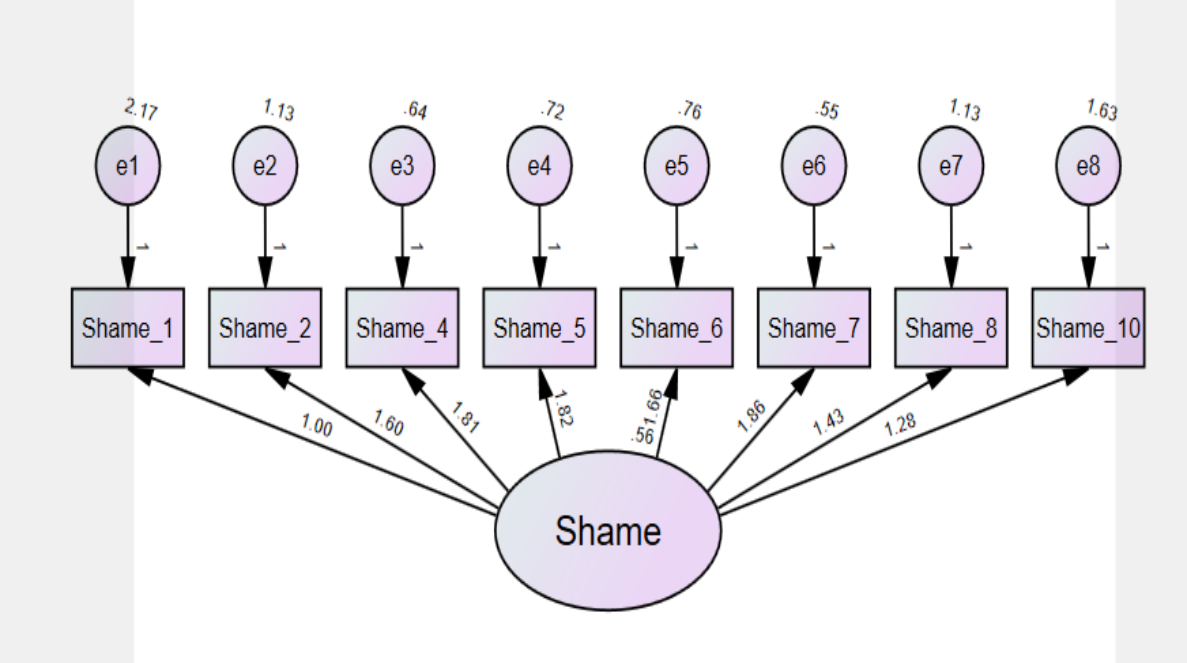


Figure 7. Shame CFA.

Cooperation

Paralinguistic Cooperation. Paralinguistic cooperation was measured with a two-factor, 10-item scale that measured both cooperative and uncooperative communication. Subjects were asked to rate the degree to which they agreed they would engage in the following communication acts with the researcher who provided them with feedback They responded to items on a five-point Likert-type scale that ranged from strongly disagree to strongly agree. Recommended fit statistics suggest $p < .05$; $CFI > .90$; $RMSEA < .08$; *and* $SRMR < .08$ (Garson, 2009). According to these fit statistics, this model yielded only moderate fit, with two items from the uncooperative communication factor yielding factor loadings <.50. In addition, the cooperative communication factor has low reliability. However, the decision to move forward with this scale as a whole was made due to a high CFI, low RMSEA and SRMR, and strong model fit from the previous study (Garson, 2009; Schermelleh- Engel et al., 2003). The tested model can be viewed below (see Figure 8), the descriptive statistics canv be viewed above (see Table 8), the fit statistics can be viewed above (see Table 10), and the paralinguistic cooperation scale items can be viewed below (see Table 11).

Behavioral Cooperation. Behavioral cooperation was measured with three items: how many words subjects wrote, the degree to which subjects rated intentions of writing 250 words, and the degree to which subjects rated intentions of trying to comply with the researcher's request. The number of words measure was calculated by counting the number of words subjects typed in their essay. Both the "Tried to write 250-words" and "Tried to comply" items were measured on a five-point Likert-type scale that ranged from strongly disagree to strongly agree. The number of words written served as the indicator of behavioral cooperation and the two items (tried to comply and tried to write 250 words) served as the indicators of behavioral cooperation

Table 11. ***Paralinguistic Cooperation Scale.***

Dimension	Item Number	Item
Cooperative Communication	1	Trying to make the person feel free to choose what they speak about
	2	Taking turns in a conversation
	3	Reciprocating interest level in the topic
Uncooperative Communication	1	Trying to make the person feel like they don't belong
	2	Not speaking much
	3	Interrupting
	4	Not reciprocating interest level in the topic
	5	Not self-disclosing when the other person self-discloses
	6	Not letting the other person have a a chance to speak in the conversation
	7	Disagreeing with the person

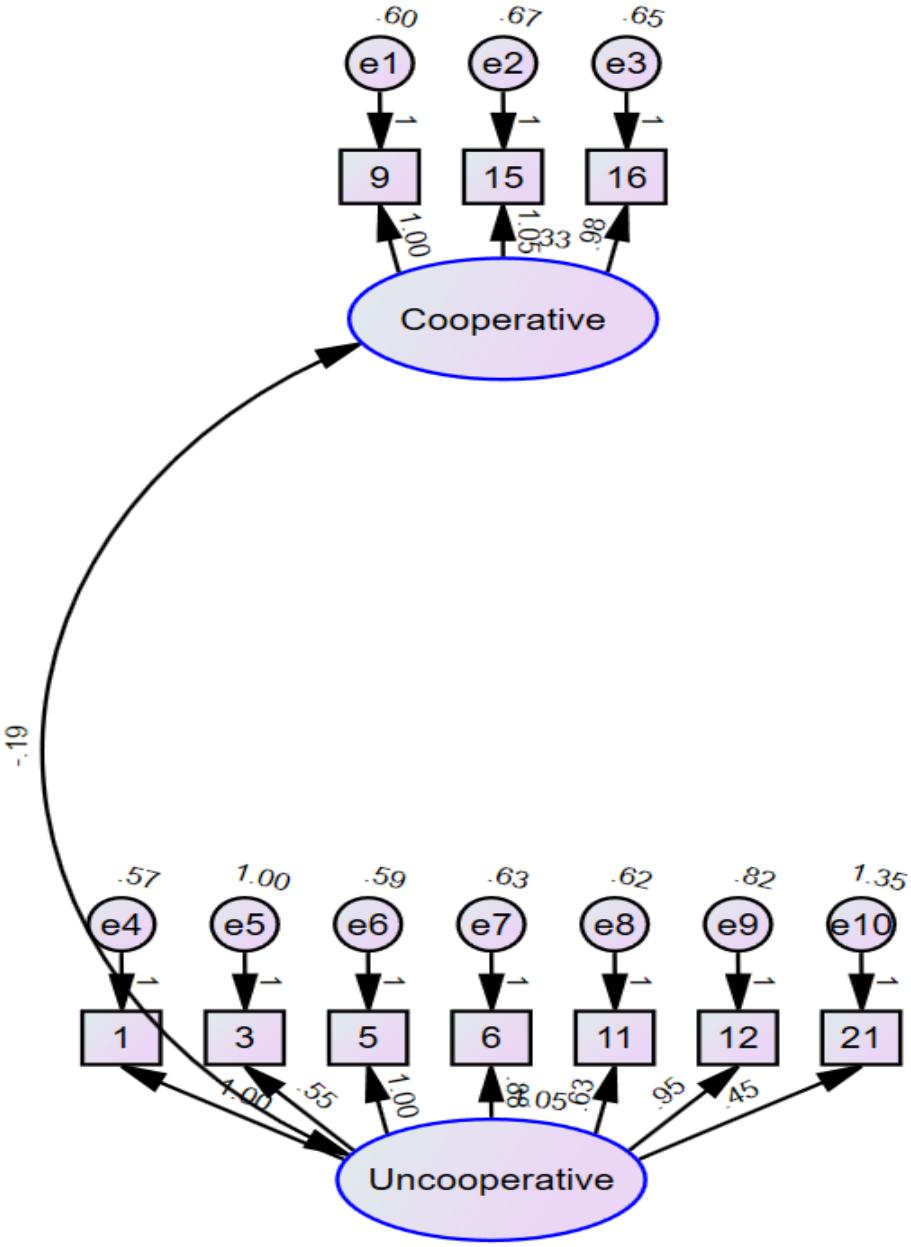


Figure 8. Experimental Paralinguistic Cooperation Model.

intentions. All three behavioral cooperation indicators were subjected to a CFA to test model fit, and unfortunately, the behavioral cooperation measurement model failed and reliability was surprisingly low, a = .01. At face value, it appears the number of words written was the problematic item and both of the intentions to comply items had a moderate association with one another.

Chapter 10: Experimental Results

Model Fit

To test the path model hypothesized by this study, each measurement model was subjected to a CFA and required to yield a well-fitting fit statistics. The measurement models included shame, paralinguistic cooperation, and behavioral cooperation. The shame and paralinguistic cooperation scales yielded moderate fit that would have been usable for the purpose of testing the path model but unfortunately the behavioral cooperation model did not fit. The behavioral cooperation measurement model was hypothesized to include three indicators: overt behavioral cooperation (number of words written), ratings of intentions of writing 250-words, and ratings of intentions of complying. Unfortunately, fit indices were far too low and measures of error between what is expected and what was observed were far too high. Due to these items not resulting in statistical support as indicators of behavioral cooperation, the original hypothesized model is unable to be tested.

Without a well-fitting measurement model for behavioral cooperation, the hypothesized model for this study cannot be tested. Based on the inability to test the hypothesized model, it can be concluded the conceptual model, which hypothesizes politeness exerts causal force onto experiences of shame, which in turn exerts causal force onto both behavioral and paralinguistic cooperation, could not be supported.

Post-hoc Analyses

Post hoc analyses can be controversial and sometimes be labeled as “fishing” or “data harking.” The controversy is understandable because the very nature of sampling error theorizes the more relationships a researcher tests for, the more likely the researcher is to find significant results (Garson, 2009). To be very clear, the model proposed by this study was unable to be

tested and ultimately, that is the main and more crucial claim of this study. The goal of this section is not to test as many relationships as possible until significant results are achieved. Rather, this section aims to thoroughly test the relationships among politeness, shame, and cooperation for the purpose of potentially gaining further understanding as to why the model failed and potential directions for future research. This section presents a modified version of the original hypothesized model as well as individual hypotheses that were derived from the model, but are not indicative of the overall model fit. Shame and paralinguistic cooperation measurement models are included, but due to the failure of the behavioral cooperation measurement model, all three items are used as individual measures. The descriptive statistics can be viewed above (see Table 8).

Hypotheses

As previously stated, data are analyzed to provide interpretive statistics in support of or against individual hypotheses 5-13. Hypotheses 5 and 7-13 were not specific to the four conditions, rather they hypothesized differences in outcome variables between politeness and impoliteness conditions. In addition, previous literature reported inconsistent findings between the four conditions along with inconsistent findings between the conditions appearing in this study (See Tables 12 &13) (Afifi & Lee, 2000; Kellerman & Shea, 1996). Thererfore, to address hypothesis 5 and hypotheses 7-13, the four conditions were collapsed into two conditions: exposure to polite feedback messages and exposure to impolite feedback messages. The exposure to polite feedback messages encompasses both the identity politeness and autonomy politeness conditions and is referred to as the polite condition (N = 162). The exposure to impolite feedback messages encompasses both the identity politeness and autonomy impoliteness conditions and is referred to as the impolite condition (N= 114).

Table 12. *Four Condition Mean Comparison Data.*

	Shame	No. Words	Intention Write	Intention Comply	Coop-erative	Uncoop-erative	Perception Polite	Perception Impolite
PFS M	*2.71*	*124.13*	*4.37*	*4.05*	*3.77*	*2.89*	*3.92*	*3.08*
PFS SD	*1.13*	*89.19*	*.91*	*1.01*	*.77*	*.91*	*1.02*	*1.40*
PFT M	*3.19*	*92.80*	*4.05*	*4.04*	*3.60*	*3.22*	*3.55*	*3.62*
PFT SD	*1.27*	*101.74*	*.92*	*.99*	*.63*	*.77*	*1.13*	*1.15*
NFS M	*2.85*	*86.34*	*4.23*	*4.01*	*3.86*	*3.38*	*4.14*	*3.64*
NFS SD	*1.31*	*83.17*	*.97*	*.99*	*.78*	*.81*	*.79*	*1.24*
NFT M	*2.91*	*94.53*	*4.30*	*4.19*	*3.67*	*3.38*	*3.84*	*3.64*
NFT SD	*1.18*	*85.69*	*.87*	*.93*	*.73*	*.84*	*.98*	*1.08*
F-Value	*1.83*	*3.00*	*1.48*	*.40*	*1.50*	*6.20*	*3.82*	*4.01*
df	*3, 279*	*3, 279*	*3, 279*	*3, 279*	*3, 279*	*3, 279*	*3, 279*	*3, 279*
p-value	*.14*	*.03*	*.22*	*.75*	*.21*	*.00*	*.01*	*.01*
Effect Size	*.02*	*.03*	*.02*	*.00*	*.02*	*.06*	*.04*	*.04*

Note. PFS refers to positive face saving (identity politeness), PFT refers to positive face threatening (identity impoliteness), NFS refers to negative face saving (autonomy politeness) and NFT refers to negative face threatening (autonomy impoliteness). The "perception polite" and "perception impolite" variables include subjects' responses to the politeness and impoliteness manipulation checks.

Table 13. *Four Condition post hoc Analysis Data.*

Measure	Conditions with Significance	Post Hoc Test	p-value
Number of Words		Tukey HSD	
	PFS*NFS		*.04*
Perception Polite		Tukey HSD	
	PFT*NFS		*.01*
Perception Impolite		Tukey HSD	
	PFS*PFT		*.05*
	PFS*NFT		*.06*
Uncooperative Communication		Tukey HSD	
	PFS*NFS		*.00*
	PFS*NFT		*.00*

Note. Post Hoc Analyses Test was chosen based on Levine's Test of Homogeneity.

Hypothesis 5 stated: Subjects in the polite conditions report statistically significantly lower levels of experiences of shame in comparison to subjects in the impolite conditions. This hypothesis was supported with subjects in the polite conditions reporting statistically significantly lower levels of experienced shame, in comparison to subjects in the impolite conditions (see Table 14). There was also a statistically significant positive correlation between perception of the feedback's impoliteness and experiences of shame ratings (see Table 15).

Hypothesis 6 stated: Subjects in the negative face threatening condition report statistically significantly higher levels of experienced shame in comparison to subjects in the positive face threatening condition. This hypothesis was not supported with no statistically significant differences in experience of shame ratings between the four conditions (see Table 12).

Hypothesis 7a stated: Subjects in the polite conditions report statistically significantly higher levels of intended cooperative communication in comparison to subjects in the impolite conditions (see Table 14). This hypothesis was supported with subjects in the polite conditions reporting statistically significantly higher intentions of cooperative communication, in comparison to subjects in the impolite conditions. There was also a statistically significant positive correlation between perception of the feedback's politeness and reports of cooperative communication intentions.

Hypothesis 7b stated: Subjects in the polite conditions report statistically significantly lower levels of intended uncooperative communication in comparison to subjects in the impolite conditions (see Table 14). This was not supported with no statistically significant differences in intentions of uncooperative communication ratings between the two conditions. However, there was a significant positive correlation between perception of the feedback's impoliteness and reports uncooperative **c**communication intentions (Table 15).

Table 14. *Analysis of Variance between politeness and impoliteness conditions.*

		N	M	SD	F-Value	DF	p-value	Effect Size
Shame								
Conditions					*4.22*	*1, 276*	*.04*	*.02*
	Polite	*162*	*2.66*	*1.25*				
	Impolite	*114*	*2.98*	*1.29*				
Number of Words								
Conditions					*2.01*	*1, 274*	*.16*	*.01*
	Polite	*162*	*109.32*	*89.51*				
	Impolite	*114*	*93.54*	*93.16*				
Intentions of Writing								
Conditions					*1.54*	*1, 275*	*.22*	*.01*
	Polite	*162*	*4.31*	*.94*				
	Impolite	*114*	*4.18*	*.90*				
Intentions of Cooperative Communication								
Conditions					*4.21*	*1, 275*	*.04*	*.02*
	Polite	*162*	*3.81*	*.78*				
	Impolite	*114*	*3.62*	*.70*				
Intentions of Uncooperative Communication								
Conditions					*2.90*	*1, 275*	*.09*	*.01*
	Polite	*162*	*2.88*	*.92*				
	Impolite	*114*	*2.70*	*.81*				
Intentions of Complying								
Conditions					*.36*	*1, 275*	*.55*	*.00*
	Polite	*162*	*4.04*	*.98*				
	Impolite	*114*	*4.11*	*.96*				

Table 14. *Continued.*

		N	M	SD	F-Value	DF	p-value	Effect Size
Politeness Manipulation Check								
Conditions					*6.15*	*1, 273*	*.01*	*.02*
	Polite	*161*	*4.00*	*.94*				
	Impolite	*113*	*3.70*	*1.06*				
Impoliteness Manipulation Check								
Conditions					*3.71*	*1, 275*	*.05*	*.01*
	Polite	*162*	*3.33*	*1.35*				
	Impolite	*114*	*3.62*	*1.11*				

Note. Manipulation check data were included in this table to support the notion that subjects exposed to polite messages perceived their feedback to be significantly more polite than subjects exposed to impolite messages and subjects exposed to impolite messages perceived their messages to be significantly more impolite than subjects exposed to polite messages. Subjects' ratings of the politeness and impoliteness of their feedback message is used later to test correlational relationships.

Table 15. *Experiment Correlation Matrix.*

	Perception Polite	Perception Impolite	No. Words	Intention Comply	Intention Write	Shame	Coop-erative
Perception Polite							
Perception Impolite	*-.01*						
Number of Words	*-.09*	*-.22**					
Intentions Comply	*.20**	*.01*	*.18**				
Intentions Write	*.09*	*-.10*	*.26**	*.37**			
Shame	*-.09*	*-.24**	*-.14**	*-.19**	*-.24**		
Coop-erative	*.26**	*.04*	*.01*	*.22**	*.08*	*-.11*	
Uncoop-erative	*.19**	*.46**	*-.25**	*-.07*	*-.26**	*.30**	*.26**

Note. An asterick* with the correlation indicates significance at the .05 level, or below.

Hypothesis 8 stated: Subjects in the polite conditions engage in statistically significantly higher levels of behavioral cooperation, in comparison to subjects in the impolite conditions. This hypothesis was not supported, with no statistically significant differences in the number of words written existing between the two conditions (Table 14).

Hypothesis 9 stated: Subjects in the polite conditions report statistically significantly higher levels of intended behavioral cooperation, in comparison to subjects in the impolite conditions. This hypothesis was not supported with no statistically significant differences between the polite and impolite conditions in regard to ratings of intentions to comply nor between ratings of intentions to write 250-words (Table 14). There was, however, a statistically significant positive correlation between perception of the feedback's politeness and intentions of complying (Table 15).

Hypothesis 10 stated: There is a statistically significant positive correlation between shame and intentions of uncooperative communication. This was supported with a statistically significant positive correlation between shame and uncooperative communication intentions (see Table 15).

Hypotheses 11 stated: There is a negative relationship between shame and intentions of cooperative communication. This hypothesis was not supported in that there was not a significant negative correlation between shame and intentions of cooperative communication (see Table 15).

Hypothesis 12 stated: There is a negative relationship between shame and behavioral cooperation. This was supported with a statistically significant negative correlation between shame and the number of words written by subjects (see Table 15).

Hypothesis 13 stated: There is a negative relationship between shame and intentions of behavioral cooperation. This hypothesis was supported with a statistically significant negative

correlation between both shame and intentions of writing 250-words as well as between shame and intentions of complying (see Table 15).

Modified Path Model

Given the failure of the behavioral cooperation measurement model, a *post-hoc* model was tested hypothesizing politeness exerts causal force onto shame, which, in turn, exerts causals force onto paralinguistic cooperation, behavioral cooperation, intentions of complying, and intentions of writing the 250-word essay. Along with the hypotheses, these data also used the two conditions, polite vs. impolite, which were collapsed down from the original four. Unfortunately, this path model did not yield acceptable fit indices or error terms. Therefore, this model was not supported (see Figure 9). The choice was made to test this as the model because it was as close to the original as possible. Although additional modified models may yield better fitting statistics, there is also a strong possibility of producing false positives due to sampling error and therefore the decision was made to only test one modified path model.

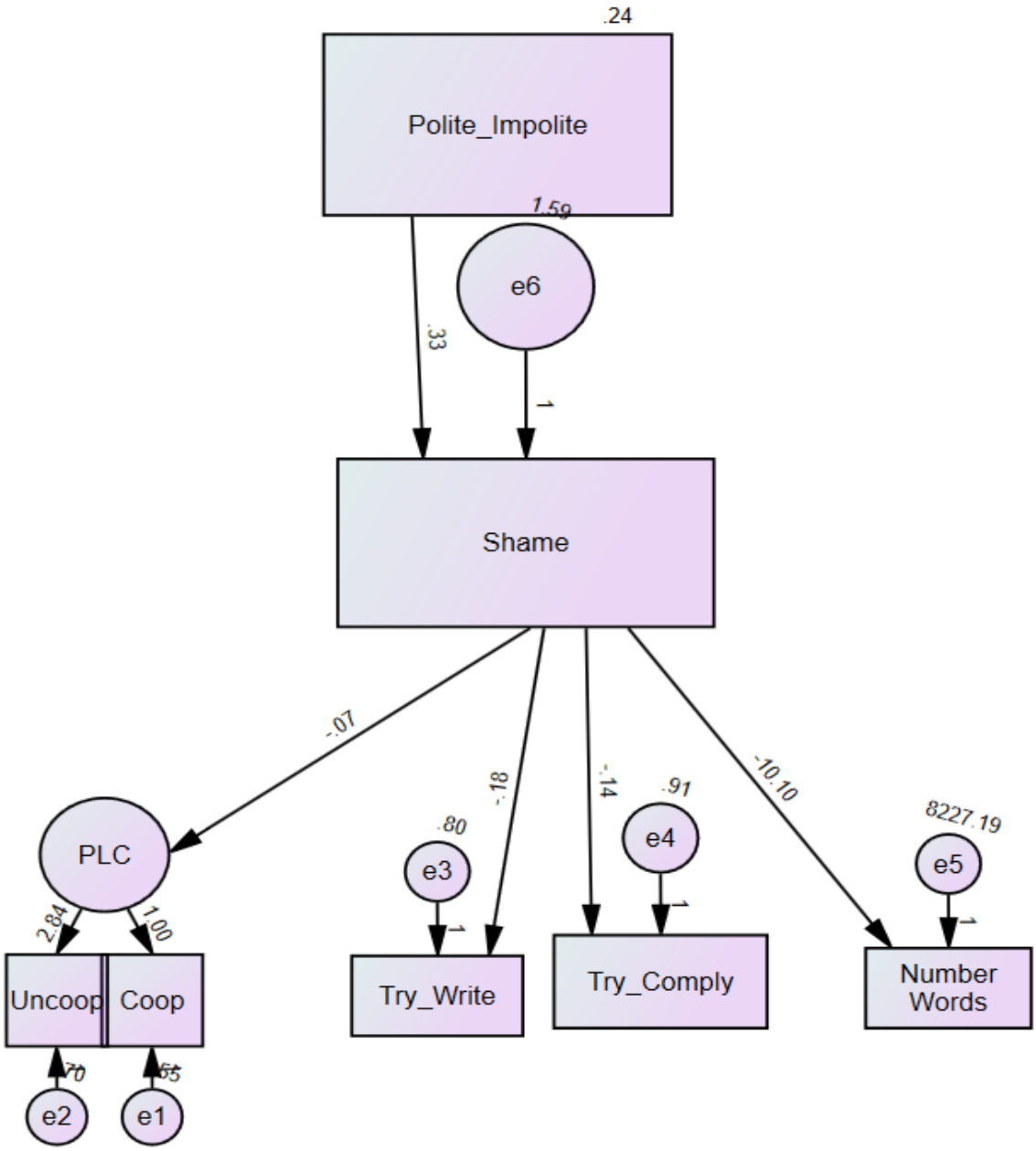


Figure 9. Modified Experimental Model Tested.

Chapter 11: Experimental Discussion

Politeness Theory

Findings from this study are consistent with previous research on politeness theory, in that there is more support for the idea that messages can either be polite or impolite, but differences in types of politeness and impoliteness are not supported. The data from this study suggests the theory behind why messages are perceived as polite or impolite needs to be reevaluated. Politeness theory claims differences in types of politeness and impoliteness exist based upon which social desire, identity or autonomy, is supported or violated. Due to the subjects in the politeness conditions rating their feedback as statistically significantly more polite than impolite and subjects in the impoliteness conditions rating their feedback as statistically significantly more impolite than polite, it would be reasonable to infer that regard to human social desire is related to politeness. However, due to the inconsistent nature of the results of the study's four conditions, as well as the similar results from other literature, it is also reasonable to infer that regard to human social desire in general is related to politeness and no theoretically meaningful differences exist between identity and autonomy desires. Theoretically meaningful differences may exist between different yet related types of politeness.

Politeness theory was developed inductively through listening to hours of conversations, coding utterances for politeness types, theorizing as to why each strategy is interpreted positively or negatively, and developing labels for the groups of strategies. Based on this study, as well as most politeness literature and additional literature that has not been published due to the publishing bias related to significant results, finding meaningful differences between types of politeness and types of impoliteness has proven to be difficult (Afifi & Lee, 2000; Kellerman & Shea, 1996). Particularly, finding consistent differences among all four types of politeness is rare

if not non-existent (Afifi & Lee, 2000; Kellerman & Shea, 1996). Fortunately for this study, stimuli were developed based on strategies developed directly from Brown and Levinson's strategies. These strategies are only one step removed from the data used to develop politeness theory. Labels were created for these strategies, and the exemplars used to develop stimuli for this study were developed from those labels. However, these data were then grouped and theorized as to the characteristics that describe each group (i.e., positive face saving, negative face threatening, etc.). Therefore, conditions were able to be collapsed from four (two types of politeness and two types of impoliteness) to two: politeness and impoliteness. Using politeness and impoliteness as conditions rather than the original four conditions, theoretical meaning could be interpreted.

This study hypothesized politeness exerts causal force onto experiences of shame, which in turn exerts causals force onto cooperation. Cooperation was a two-dimensional construct encompassing behavioral and paralinguistic cooperation. The conceptual path model representing this set of relationships was unable to be analyzed because, although the shame and paralinguistic measurement models held up, the behavioral cooperation measure did not. A modified version of the path model, using the three intended indicators of behavioral cooperation as separate outcome variables was analyzed *post-hoc* but this model was not supported either. Upon further reflection, it makes statistical sense this model did not fit because the behavioral cooperation measurement model was so poor fitting.

To thoroughly interpret these data, the data were subjected to mean comparisons and correlations in *post-hoc* analyses as well. Surprisingly, many of the individual relationships proposed by the path model were supported. The relationship between politeness and shame was consistent with what was predicted by the literature. The relationship between shame and

paralinguistic cooperation did not exactly aligned with what the literature predicted even though there was reasonable support for the idea that individuals experiencing shame are less likely to paralinguistically cooperate.

Data from this study in support of the relationship between politeness and paralinguistic cooperation was also consistent with the literature. Although there were a few analyses that indicated the existence of connections among politeness, shame, and behavioral cooperation, overall this variable as a whole as well as the individuals items intended to indicate behavioral cooperation were problematic. Further detail related to issues with this construct is discussed in the limitation section.

Some support for specific relationships hypothesized by the path model were supported but the original model was unable to be tested. Data from the mean comparisons yielded extremely small effect sizes, even when the differences in means were significant. This gives some insight as to why the model did not fit. Although some relationships were supported and some results were significant, the true effects of the exogenous variables on the endogenous variables were so small that the results do not necessarily mirror real-life communication processes. Rather, these data show support for the idea that either the significant results were due to sampling error, or, with improved stimuli and an improved sample, a meaningful effect size may be the outcome.

If the reader is of the belief that any significant findings with small effect sizes are the result of sampling error, and relationships supported by these data are not in fact reflective of reality, the discussion of the results begins and ends with the idea that this information is useless. However, if the reader is of the belief that limitations in the data collection process may have caused the small effect sizes in the mean comparison analyses, the correlational data are

theoretically meaningful, and it is possible the relationships supported by these data reflect actual communication processes, it is interesting to note the relationships between how polite subjects perceived their feedback messages to be (represented by the perception of politeness and perception of impoliteness variables in the correlation matrix in Table 15), was as aligned, if not more aligned, with what previous literature predicted.

Social Self-Preservation Theory

Social self-preservation theory posited that autonomy and identity threatening situations lead to increased cortisol levels, which ultimately caused increased levels of shame. Unfortunately, this section of the model was not able to be tested due to the omission of cortisol data collection. Without these data, it is difficult to provide information in support of, or against, social self-preservation theory. Based upon the findings related to both exposure to and perception of polite/impolite messages, there was support for the notion that subjects who were exposed to direct identity- and autonomy-threatening messages as well as perceived messages to be identity- or autonomy-threatening experienced statistically significantly more shame in comparison to subjects who were exposed to as well as perceived messages to communicatively camouflage threats. These data can also tentatively extend the theory in providing support for the idea that experiences of shame are also positively related to communicative and behavioral cooperation, although it cannot be stated that the shame itself causes the cooperation.

Practical Implications

To address questions posed in the introduction, such as why are humans polite, why do we teach politeness in interpersonal communication classes, and why do we teach our children to be polite, these data lend support to answering this question with, “to keep social order.” Psychologically, experiences of shame had statistically significant negative correlations with

measures of behavioral cooperation and a statistically significant positive correlation with intentions of being communicatively uncooperative. These data lend support in the domain of motivations behind human behavior. Many compliance-gaining strategies vary on dimensions of explicitness, dominance, and logic (Marwell & Schmidt, 1967). In regard to the dominance dimension, these data are unsupportive of behavior and communication characterized by asserting dominance and shaming humans into submission and compliance. These data support a more submissive approach in gaining communicative and behavioral cooperation, one that does not invoke experiences of shame.

Perception of the message's politeness was comparable to the significance of intention of the message's politeness to which subjects were exposed. This finding emphasizes the importance of collecting data related to how messages are perceived. Compliance-gaining research emphasizes types and intentions of messages, but a researcher of this nature would be wise to measure perceptions related to the messages.

Limitations

There are two glaring limitations with this study as well as a few smaller limitations. The first major limitation is the channel of data collection and the second major limitation is the sample type. In regard to the medium of data collection, this study was intended to be an in-person study in which subjects would receive feedback thought to be developed specifically for them. The original study idea also involved students participating on campus, with the compensation of class credit. Paying careful attention and following through with the study had more lure in this context than the online context. However, due to the COVID-19 pandemic, the study was altered to be an online study. Given this circumstance, an online sample was the best

alternative option. Although every attempt was made to imply feedback was developed specifically for the subjects, the ability to create this impression is questionable.

Further, due to an unresolvable disagreement between the subject pool administrators and Communication Studies department head, the intended sample was also not able to be used. This study originally planned to use the University's subject pool, but when this was no longer an option, the sample was collected through MTurk. Although every attempt was made to imply feedback was developed specifically for the subjects, the ability to create this impression is questionable. Realism scores averaged above 3, on a scale from 1-5, so it can be interpreted that subjects believed the study to be more real than not real; however, it cannot be overlooked that the researcher was anonymous, they could quit at any time with the consequence of sacrificing $1.00, and the identity of the subjects is unknown. In addition, it is unknown how many surveys MTurk users complete, which leaves their degree of familiarity with social science research unknown, and their motivation behind why they complete studies a mystery. Some workers may be relatively inexperienced with social science research and therefore more likely to be affected by the induction, but some may be highly familiar with research of this type and able to accurately guess the purpose of the study and respond based on varying intentions. In using MTurk as a data collection sample, although every effort was made to limit error, the degree to which subjects were able to manipulate settings and IP addresses, to match criteria they do not in fact match, and provide answers they do not in fact mean, is questionable based upon the anonymity.

In aiming to keep the highest quality data, the researchers carefully examined responses and deleted hundreds of responses that were clearly written by non-English speaking individuals

or computer generated. This process was cumbersome and the responses that were included did appear to have face validity, but it cannot be as certain as it was intended to be.

Along with the study being changed to an online format, the cortisol measure was not included. This decision was originally made due to funding and storage access issues and before the "unprecedented times" began; this change also would have had to be made once the study was moved online. Although this severely limited the ability to provide data in support of or against social self-preservation theory, in retrospect, it was wise to do this study without the cortisol measure and then had the model been supported, repeat the study with cortisol measures included. Including the variable in the model makes theoretical sense, however the resources necessary to include this measure were not justified without preliminary support for the model and an ability to measure the critical variables of interest. Interesting information may have come from the study, but it is also possible significant resources would have gone to waste.

The behavioral cooperation measure significantly limited this study in that the failure of the measurement model prevented the conceptual path model from analysis. Both the feedback messages and paralingustic cooperation measure were pretested and the paralinguistic cooperation measure included an entire additional set of data that was subjected to a CFA. There were between 20 and 40 items for both the feedback messages pretest model and the paralinguistic cooperation model. Unfortunately, lack of forethought left this study with a three-item model of behavioral cooperation. Not only had this model not been previously subjected to a CFA, but the removal of just one item left the model under-identified. This was clearly a significant limitation to the study and reconciliations for this error are discussed in the following section.

Some of the smaller, yet limiting, factors are related to the stimuli and data collection measures. Upon data analysis and failing to provide support for two types of politeness and two types of impoliteness, the pretest that developed the stimuli for this study would have been altered. Rather than providing subjects the original pretest instructions, instructions would have utilized more simple terminology that focused on asking subjects to simply pick out polite or impolite strategies and omitted instructions that utilized face-management terminology. It is believed this approach would have yielded a stronger model of polite and impolite messages and ultimately exerted more causal force on subsequent variables in the model. In addition to issues with the content of feedback, the messages were not as structurally consistent as they could have been, which threatens internal validity. All four of the messages contained the same "filler" phrases, such as, "Our team has looked over your list of ten items." However, the four feedback messages varied by the degree of politeness as well as the type of politeness, and therefore the exemplars had structural differences, such as the number of words in each feedback message. This is a limitation in regard to internal validity because with the existence of a relatively inconsistent number of words in the feedback messages, as well as an experimental measure of the number of words written by subjects, there is a possibility the number of words written by the subject was influenced by the number of words in their feedback message, rather than the intended influence, which was degree and type of politeness. When collecting data of this nature again, attention needs to be paid to the structural consistency of the feedback messages, which involves the number of words in each feedback message being as consistent as possible. . In addition, an ANOVA should have been run on the four conditions to assess the degree to which each group was perceiving their intended exemplars to represent the goal of the condition.

Further, this study measured intentions of communication cooperation and non-cooperation rather than observed communication cooperation and non-cooperation. Intended communication is not a 1:1 ratio with executed communication and therefore error is introduced. This series of studies was used to develop indicators for the concept of communication cooperation and future research would be well served to consider measurement of observed communication cooperation and non-cooperation.

To elaborate on the issues with measuring paralinguistic cooperation using a two-factor measure, another issue exists with one of the items. The item "not reciprocating interest in the conversation" is included in the uncooperative communication factor and the item "reciprocating interest level in the conversation" is included in the cooperative communication factor. However, both CFAs suggest this overlapping item has not shown to cause a covariance issue.

Choosing to modify the model by using the three behavioral outcomes rather than including the failed behavioral cooperation measurement model was not the optimal choice. Upon further reflection, a more ecologically sound modified path model could have been tested. The paralinguistic cooperation scale had problematic items and problematic reliability and the three behavioral cooperation items were very problematic in relation to one another. This research would have been better served to examine which scales and items yielded the most support and test a modified version of the hypothesized path model based upon this, rather than choosing to modify the model based on separating out one problematic measurement model.

Future Research

To begin, a plan to address the limitation most recently discussed is presented. The two-factor measurement model of paralinguistic cooperation has been subjected to CFAs and covariance between the overlapping items has not yet posed an issue, but it very likely may in

the future. Additional data have been collected and the paralinguistic cooperation scale should be subjected to both discriminant and convergent validity profiles. If an issue exists with this overlapping item, the additional statistical scrutiny can likely highlight this issue, causing it to be removed for one of the factors, or there should be additional support that the covariance between these two items does not pose an issue.

Shame is a relevant area of future research. There were significant findings associated with shame and future research would be well served to examine if experiencing shame does not occur by everyone experiencing impoliteness but does predict cooperation. In this scenario, rather than the original claim, that shame mediates the politeness-cooperation relationship, it would suggest shame moderates the politeness-cooperation relationship.

Further, the behavioral cooperation variable needs signficiant work. Based upon the small variation in behavioral compliance measures in the literature, an exploratory factor analysis is recommended for future research related to behavioral cooperation. Similar to the paralinguistic cooperation construct, previous literature needs to be reviewed in order to develop a list of items used to indicate behavioral cooperation and then subjected to a CFA. Unlike the behavioral cooperation measure in this study, the list needs to contain enough items to be able to remove the ill-fitting items. This study only included three items and therefore was under-identified with the removal of even one item.

Although there was a reasonable model fit for the politeness messages, the model failed to yield support. As discussed in the limitations section, this may be due to issues with the stimuli developed from the pretest. Collecting pretest data again, but using polite and impolite terminology, supports a further understanding of politeness. This understanding should likely lend support to the strategies proposed by Brown and Levinson but not support the reasoning

behind why the strategies exist and how they should be grouped together. In addition, upon further analysis, new exemplars may be added and some may be modified.

The relationships among politeness, shame, and cooperation need additional analysis and data collection. There are other theoretically sound alternative relationships among these variables, and in all likelihood other emotional or psycho-social variables that exist in combination with politeness and cooperation. One hypothetical explanation behind the failture of the model is that subjects who did not behaviroally cooperate felt more shame in comparison to subjects who did cooperate. This is just one possible explanation and it is also possible that a whole host of other variables could potentially mediate, or perhaps even moderate, the politeness—cooperation relationship.

In addition to the paralinguistic construct, behavioral cooperation is in need of additional research. Behavioral cooperation, as discussed in the limitations section, did not yield a well-fitting measurement model. To the best of the author's knowledge, there are no models of behavioral cooperation that have been subjected to a CFA and yielded a well-fitting model. Most compliance gaining research uses one measure of compliance and relies on that data as the sole representation of behaviroal cooperation. To develop a theoretical and operationally sound measure of behavioral cooperation, the literature needs to be further scrutinized and a model of behavioral cooperation needs to be developed, much in the same way the model of paralinguistic cooperation is in the beginning stages of development in this study.

Another direction would be to carry out this study in-person. This study is IRB approved to be conducted in person, as originally planned, and the original materials are available as well. When research returns to including in-person data collection as a possibility, this study can be carried out as originally planned and data can be analyzed as well as compared to the current

study. This provides theoretical data as well as data related to in-person vs. computer-mediated data collection.

This study also originally contained cortisol data collection. The data from this study suggest that both perceptions of and exposure to polite messages are associated with lower levels of experienced shame, both perceptions of, and exposure to, impolite messages are associated with higher levels of experienced shame. Based on a meta-analysis that included cortisol data collection, shame is positively associated with cortisol levels (Dickerson & Kemeny, 2004). Although the current model was not tested, it would still be theoretically meaningful to examine the relationships among politeness, cortisol, and shame, and cooperation in the future.

As mentioned several times throughout the literature review, cortisol is a relevant variable to research in relation to politeness, shame, and cooperation. However, as is the case with this study, cortisol is a high maintenance data collection process that requires highly particular collection, storage, and analysis resources, Another option to conduct research related to cortisol is to use synthetic cortisol, such as collecting data from subjects who received synthetic cortisol as part of medical treatment.

Practical Implications

To address questions posed in the introduction, such as why are humans polite, why do we teach politeness in interpersonal communication classes, and why do we teach our children to be polite, these data lend support to answering this question with, “to keep social order.” Psychologically, experiences of shame had statistically significant negative correlations with measures of behavioral cooperation and a statistically significant positive correlation with intentions of being communicatively uncooperative. These data lend support in the domain of motivations behind human behavior. Many compliance-gaining strategies vary on dimensions of

explicitness, dominance, and logic (Marwell & Schmidt, 1967). In regard to the dominance dimension, these data are unsupportive of behavior and communication characterized by asserting dominance and shaming humans into submission and compliance. These data support a more submissive approach in gaining communicative and behavioral cooperation, one that does not invoke experiences of shame.

Perception of the message's politeness was comparable to the significance of intention of the message's politeness to which subjects were exposed. This finding emphasizes the importance of collecting data related to how messages are perceived. Compliance-gaining research emphasizes types and intentions of messages, but a researcher of this nature would be wise to measure perceptions related to the messages.

When considering the data collected from the pretest and the experiment, in relation to one another, it would be hasty to conclude politeness theory has no theoretical meaning. Rather, it would be more accurate to conclude politeness theory may need to reconsider the conceptualization of politeness. Operationally, the acts and strategies proposed by Brown and Levinson performed well, with subjects in the polite conditions rating their feedback messages as significantly more polite in comparison to subjects in the impolite conditions, as well as subjects in the impolite conditions rating their feedback messages as significantly more impolite in comparison to subjects in the polite conditions. Those ratings indicate the acts and strategies do in fact convey politeness and impoliteness in alignment with what they are proposed to do.

Only moderate pretest model fit suggest it is more likely these acts and strategies create messages that are either polite or impolite and not a specific type of politeness or impoliteness. Subjects in the pretest were asked to pick the exemplars that would best achieve the goal of their condition, with the goals including regard for acceptance, regard for autonomy, disregard for

acceptance, and disregard for autonomy. Although the data do not suggest these four levels of politeness exist, they do suggest politeness can be understood as regard for the receiver whereas impoliteness can be understood as disregard for the receiver. This new conceptualization of politeness and impoliteness reconciles the discrepancy between conditions in the pretest and experiment.

Paralinguistic cooperation yielded a well-fitting model both in the validation study as well as the experiment. This suggests paralinguistic cooperation is a theoretical construct and it can be measured by both the presence of cooperative communication characteristics as well as the absence of uncooperative communication characteristics. This finding is interesting in that it was intuitive throughout the literature that certain communication characteristics would be considered communicatively cooperative, but the idea of the absence of uncooperative communication characteristics was scarcely mentioned. This dimension of the construct makes for an intuitive observational measure of paralinguistic communication because sometimes it is more clear what is absent from a conversation in comparison to what is present in a conversation.

Overall, data from the experiment suggest politeness is associated with decreased experiences of shame and impoliteness is associated with increased experiences of shame. Further, the data suggest shame is negatively associated with paralinguistic and behavioral cooperation, or compliance, as the proposed model suggested; the results are cautionary because of the small effect sizes. In addition, the idea that politeness exerts causal force onto shame which in turn exerts causal force onto cooperation was not supported. The model proposed in the experiment of this series of studies was not able to be tested but many of the individual relationships proposed by the model were supported. The relationship between politeness and cooperation may be a fruitful area of research.

References

Afifi, T. D., Granger, D. A., Denes, A., Joseph, A., & Aldeis, D. (2011). Parents' communication skills and adolescents' salivary a-amylase and cortisol response patterns. *Communication Monographs, 78,* 273-295. https://doi.org/10.1080/03637751.2011.589460

Afifi, W. A. & Lee, J. W. (2000). Balancing instrumental and identity goals in relationships: The role of request directness and request persistence in the selection of sexual resistance strategies. *Communication Monographs, 67*, 284–305. https://doi.org/10.1080 /03637750009376511

Attardo, S. (1997). Locutionary and perlocutionary cooperation: The perlocutionary cooperative principle. *Journal of Pragmatics, 27*, 753-779. doi: 10.1016 /S0378-2166(96)00063-X.

Baxter, L. A. (1984). An investigation of compliance-gaining as politeness. *Human Communication Research, 10*, 427–456. https://doi.org/10/1111/ j.1468-2958.1984.tb00026.x

Beaulieu, L., Hanley, G. P., Roberson, A. A. (2013). Effects of peer mediation on preschoolers' compliance and compliance precursors. *Journal of Applied Behavior Analysis, 46*, 555-567. https://doi.org/10.1002 /jaba.66

Birditt, K. S., Nevitt, M. R., & Almeida, D. M. (2015). Daily interpersonal coping strategies: Implications for self-reported well-being and cortisol. *Journal of Social and Personal Relationships, 32,* 687-706. https://doi.org/10.1177/0265407514542726

Boster, F. J., Shaw, A. S., Hughes, M., Kotowski, M. R., Strom, R. E., & Deatrick, L. M. (2009). Dump-and-Chase: The effectiveness of persistence as a sequential request compliance-gaining strategy. *Communication Studies, 60*, 219-234. https://doi.org/10.1080/10510970902955976

Breines, J. G., McInnis, C. M., Kuras, Y. I., Thoma, M. V., Gianferante, D., Hanlin, L., Chen, X., & Rohleder, N. (2015). Self-compassionate young adults show lower salivary alpha-amylase responses to repeated psychosocial stress. *Self and Identity, 14*, 390-402.

Brown, P. & Levinson, S. C. (1987). *Politeness: Some universals in language usage*. Cambridge University Press.

Carson, C. L., & Cupach, W. R. (2000). Facing corrections in the workplace: The influence of perceived face threat on the consequences of managerial episodes. *Journal of Applied Communication Research, 28,* 215-234. https://doi.org/10.1080 /00909880009365572

Cuesta, J. A., Gracia-Lazaro, C., Moreno, Y., & Sanchez, A. (2018). Reputation is required for cooperation to emerge in dynamic networks. *Scientific Report. N/A.* https://doi.org/arXiv:1803.06035v1

Dickerson, S. S. & Kemeny, M. E. (2004). Acute stressors and cortisol responses: A theoretical integration and synthesis of laboratory research. *Psychological Bulletin, 130,* 355-391. https://doi.org/10.1037/0033-2909.130.3.355

Ditzen, B., Schaer, M., Gabriel, B., Bodenmann, G., Ehlert, U., & Heinrichs, M. (2009). Intranasal oxytocin increases positive communication and reduces cortisol levels during couple conflict. *Biological Psychiatry, 65,* 728-731. https://doi.org/10.1016/j.biopsych.2008.10.011

Floyd, K. (2006). Human affection exchange: XII. Affectionate communication is associated with diurnal variation in salivary free cortisol. *Western Journal of Communication, 70,* 47-63. https://doi.org/10.1080/10570310500506649

Fraser, B. (1990). Perspectives on politeness. *Journal of Pragmatics, 14,* 219-236. https://doi.org/10.1016/0378-2166(90)90081-N

Garson, G. D. (2009). “Factor Analysis” from Statnotes: Topics in multivariate analysis. *American Journal of Plant Sciences, 5(13),* N/A. doi: http://faculty.chass.ncsu.edu/garson/pa765/statnote.htm.

Giles, H., Willemyns, M., Gallois, C., & Anderson, M. C. (2007). Accommodating a new frontier: The context of law enforcement. In K. Fiedler (Ed.), *Social communication* (pp. 129-162). Psychology Press.

Goffman, E. (1959). *The presentation of self in everyday life*. Anchor.

Goldsmith, D. J. (1999). Soliciting advice: The role of sequential placement in mitigating face threat. *Communication Monographs, 67,* 1-19. https://doi.org/10.1080/03637750009376492

Goldsmith, D. J., & Macgeorge, E. L. (2000). The impact of politeness and relationship on perceived quality of advice about a problem. *Human Communication Research, 26,* 234-263. https://doi.org/10.1111/j.1468-2958.2000.tb00757.x

Goldsmith, D. J., Bute, J. J., & Lindholm, K. A. (2012). Patient and partner strategies for talking about lifestyle change following a cardiac event. *Journal of Applied Communication Research, 40,* 65-86. https://doi.org/10.1080/00909882.2011.636373

Gracia-Lazaro, C., Cuesta, J. A., Sanchez, A., & Moreno, Y. (2012). Human behavior in prisoner’s dilemma experiments suppresses network reciprocity. *Scientific Reports, 2,* 325. https://doi.org/10.1038/srep00325

Gracia-Lazaro, C., Ferrer, A., Ruiz, G., Tarancon, A., Cuesta, J. A., Sanchez, A., & Moreno, Y. (2012). Heterogeneous networks do not promote cooperation when humans play a prisoner’s dilemma. *Proceedings of the National Academy of Sciences of the United States of America, 109,* 12922-12926.

Grice, H. P. (1975). Logic and conversation. *Syntax and Semantics, 3,* 41-58.

Gruenewald, T. L., Kemeny, M. E., Aziz, N., & Fahey, J. L. (2004). Acute threat to the social self: Shame, social self-esteem, and cortisol activity. *Psychosomatic medicine, 66,* 915-924. https://doi.org/10.1097/01.psy.0000143639.61693.ef

Grujic, J., Gracia-Lazaro, C., Milinski, M., Semmann, D., Traulsen, A., Cuesta, J. A., Moreno, Y., & Sanchez, A. (2014). A comparative analysis of spatial prisoner's dilemma experiments: Conditional cooperation and payoff irrelevance. *Scientific Reports, 4,* 1-9. https://doi.org/10.1038

Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion.* Yale University Press.

Infante, D. A., Rancer, A. S., & Womack, D. F. (2003). *Building communication theory* (4th ed.). Waveland Press, Inc.

Jameson, J. K. (2004). Negotiating autonomy and connection through politeness: A dialectical approach to organizational conflict management. *Western Journal of Communication, 68*, 257-277. https://doi.org/10.1080/10570310409374801

Kellerman, K., & Shea, B. C. (1996). Threats, suggestions, hints, and promises: Gaining compliance efficiently and politely. *Communication Quarterly, 44,* 145-165.

Kline, R. B. (1998). Methodology in the social sciences. Principles and practice of Structural Equation Modeling. Guilford Press.

Ladegaard, H. J. Pragmatic cooperation revisited: Resistance and non-cooperation as a discursive strategy in asymmetrical discourses. *Journal of Pragmatics, 41,* 649-666. https://doi.org/10.1016/j.pragma.2008.09.021

Lakoff, R. (1979). Stylistic strategies with a grammar of style. In *Language, sex and gender* (pp. 53-80). New York Academy of Sciences.

Lindblom, K. (2001). Cooperating with Grice: A cross-disciplinary metaperspective on uses of Grice's cooperative principle. *Journal of Pragmatics, 33,* 1601-1623.

Manson, J. H., Bryant, G. A., Gervais, M. M., & Kline, M. A. (2013). Convergence of speech rate in conversation predicts cooperation. *Evolution and Human Behavior, 34,* 419-426. https://doi.org/10.1016/j.evolhumbehav.2013.08.001

Martin-Ginis, K. A., Strong, H. A., Arent, S. M., Bray, S. R. (2012). The effects of threatened social evaluation of the physique on cortisol activity. Psychology & Health, 27, 990-1007. https://doi.org/10.1080/08870446.2011.652111

Marwell, G. & Schmitt, D. R. (1967). Compliance-gaining behavior: A synthesis and model. The Sociological Quarterly, 8, 317-328.

Miller, C. A., Ott, T., Wu, P., & Vakili, V. (2010). Politeness effects in directive compliance: Effects with power and social distance. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting,* 54(4), 487-491. https://doi.org/10.1177/154193121005400445

Moya-Albiol, Luis, Andres-Garcia, S. D., Sanchis-Calataud, M. V., Sarinana-Gonzalez, P., Ruiz-Robledillo, N., Romero-Martinez, A., & Gonzalez-Bono, E. (2013). Psychophysiological responses to cooperation: The role of outcome and gender. *International Journal of Psychology, 48,* 542-550. https://doi.org/10.1080/00207594.2012.666552

O'Brien, G. (1968). The measurement of cooperation. *Organizational Behavior and Human Performance, 3,* 427-439.

Rees, C., & Knight, L. (2008). Thinking 'no' but saying 'yes' to student presence in general

practice consultations: Politeness theory insights. *Medical Education, 42,* 1152-1154. https://doi.org/10.1111/j.1365-2923.2008.03173.x

Rusch, N., Corrigan, P. W., Bohus, M. Gitta, J. A., Brueck, R., & Lieb, K. (2007). Measuring shame and guilt by self-report questionnaires: A validation study. *Psychiatry Research,* 1-13. https://doi.org/10.1016/j.psychres.2006.04.018

Schermelleh-Engel, K., Moosbrugger, H., Muller, H. (2003). Evaluating the fit of structural equation models: Test of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research, 8(2),* 23-74.

Solomon, D., & Theiss, J. (2013). *Interpersonal communication: Putting theory into practice.* Routledge.

Townsend, S. S. M., Major, B., Gangi, C. E., & Mendes, W. B. (2011). From "In the Air" to "Under the Skin": Cortisol responses to social identity threat. *Personality and Social Psychology Bulletin, 37,* 151-164. https://doi.org/10.1177/0146167210392384

Zhang, X., Noor, R., & Savalei, V. (2016). Examining the effect of reverse worded items on the factor structure of the need for cognition scale. *Plos One, 11(6),* N/A. https://doi.org/10.1371/journal.pone.0157795

Appendix A: Pretest Scenarios and Instructions

Condition One: Positive Face Saving

Consider the following scenario:

Alex (participant A) and Taylor (participant B) are both students at a large university. They are both about the same age and they have both signed up to participate in a research study that will gain them extra credit for one of their courses. Alex and Taylor have been instructed to spend five minutes silently brainstorming and listing items they would bring with them if they were deserted on a desert island. After the five minutes has passed, a buzzer sounds and Alex and Taylor are instructed to put their lists into each of their folders and slide them under the door. They have been instructed not to interact with one another while they wait, so they are both interacting with their phones. After a few minutes pass, their folders, labeled “Participant A” (Alex) and “Participant B” (Taylor) are slid back under the door. Upon opening their folders, Taylor and Alex see that the researcher has provided feedback to them based on the items they have listed. They are instructed to read their feedback out loud to one another, starting with Participant A. After both subjects have read their feedback to one another, they are instructed to type up the list, giving reasons why they choose these items. They are allowed to add or remove any items from their original list.

Read the following statements written by the researcher as feedback to Alex. Rate the degree to which each statement would make Alex feel well liked and accepted.

Condition Two: Positive Face Threatening

Consider the following scenario:

Alex (participant A) and Taylor (participant B) are both students at a large university. They are both about the same age and they have both signed up to participate in a research study that will gain them extra credit for one of their courses. Alex and Taylor have been instructed to spend five minutes silently brainstorming and listing items they would bring with them if they were deserted on a desert island. After the five minutes has passed, a buzzer sounds and Alex and Taylor are instructed to put their lists into each of their folders and slide them under the door. They have been instructed not to interact with one another while they wait, so they are both interacting with their phones. After a few minutes pass, their folders, labeled “Participant A” (Alex) and “Participant B” (Taylor) are slid back under the door. Upon opening their folders, Taylor and Alex see that the researcher has provided feedback to them based on the items they have listed. They are instructed to read their feedback out loud to one another, starting with Participant A. After both subjects have read their feedback to one another, they are instructed to type up the list, giving reasons why they choose these items. They are allowed to add or remove any items from their original list.

Read the following statements written by the researcher as feedback to Alex. Rate the degree to which each statement would make Alex feel disliked and rejected.

Condition Three: Negative Face Saving

Consider the following scenario:

Alex (participant A) and Taylor (participant B) are both students at a large university. They are both about the same age and they have both signed up to participate in a research study that will gain them extra credit for one of their courses. Alex and Taylor have been instructed to spend five minutes silently brainstorming and listing items they would bring with them if they were deserted on a desert island. After the five minutes has passed, a buzzer sounds and Alex and Taylor are instructed to put their lists into each of their folders and slide them under the door. They have been instructed not to interact with one another while they wait, so they are both interacting with their phones. After a few minutes pass, their folders, labeled “Participant A” (Alex) and “Participant B” (Taylor) are slid back under the door. Upon opening their folders, Taylor and Alex see that the researcher has provided feedback to them based on the items they have listed. They are instructed to read their feedback out loud to one another, starting with Participant A. After both subjects have read their feedback to one another, they are instructed to type up the list, giving reasons why they choose these items. They are allowed to add or remove any items from their original list.

Read the following statements written by the researcher as feedback to Alex. Rate the degree to which each statement would make Alex feel uncontrolled and independent.

Condition Four: Negative Face Threatening

Consider the following scenario:

Alex (participant A) and Taylor (participant B) are both students at a large university. They are both about the same age and they have both signed up to participate in a research study that will gain them extra credit for one of their courses. Alex and Taylor have been instructed to spend five minutes silently brainstorming and listing items they would bring with them if they were deserted on a desert island. After the five minutes has passed, a buzzer sounds and Alex and Taylor are instructed to put their lists into each of their folders and slide them under the door. They have been instructed not to interact with one another while they wait, so they are both interacting with their phones. After a few minutes pass, their folders, labeled “Participant A” (Alex) and “Participant B” (Taylor) are slid back under the door. Upon opening their folders, Taylor and Alex see that the researcher has provided feedback to them based on the items they have listed. They are instructed to read their feedback out loud to one another, starting with Participant A. After both subjects have read their feedback to one another, they are instructed to type up the list, giving reasons why they choose these items. They are allowed to add or remove any items from their original list.

Read the following statements written by the researcher as feedback to Alex. Rate the degree to which each statement would make Alex feel controlled and obligated.

Appendix B: Pretest Consent Form

INFORMED CONSENT and AGREEMENT TO PARTICIPATE FORM
Interpersonal Communication Goals and Cooperation

Researchers: Jamie Osborn, Ph.D., ABD — E-Mail: josbor23@vols.utk.edu
School of Communication Studies — Office: 293 COM
University of Tennessee — Phone: (865) 974-0696

Michelle Violanti, Ph.D. — E-Mail: violanti@utk.edu
School of Communication Studies — Office: 287
University of Tennessee — Phone: (865) 974-7072

INTRODUCTION
The current study is interested in examining the relationship between goal achievement, interpersonal communication responses, and cooperation.

SUBJECTS' INVOLVEMENT IN THE STUDY
Participation in this study is voluntary. You will be asked to provide your thoughts and opinions regarding a scenario. There are no right or wrong answers; we are simply looking for your honest opinions. This study should take approximately 15-30 minutes.

RISKS
There are no anticipated risks associated with the collecting of this data. Individuals will be asked to read a scenario and rate the degree to which they believe a series of statements would accomplish the goal of the scenario as well as the degree to which they believe a list of statements are cooperative. There will be no information collected which connect the participant to their responses and every effort will be taken secure the data collected.

BENEFITS
The benefit to the participant is that they will be helping to advance the understanding and influence associated with the dependent/independent variables. Extra credit may be offered in the course at a minimal level for the completion of the survey, but solely at the discretion of the instructors'.

CONFIDENTIALITY
Asking the participant to not place any identifying information on the questionnaire will preserve the participant's anonymity and confidentiality. Every effort will also be taken on the researcher's behalf to ensure that the information received is in no way connectable to the participant that provided it. The data will be kept locked in a secured location.

CONTACT INFORMATION
If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study,) you may contact any of the following researchers, Jamie Osborn (josbor23@vols.utk.edu) or Dr. Michelle Violanti (violanti@utk.edu), at 1345 Circle Park Drive, Knoxville, TN 37916. If you have questions about your rights as a participant, you may contact the Office of Research Compliance at (865) 974-3466.

PARTICIPATION

Participation is voluntary. If at any time a student feels they are unable to complete their participation in this study, they are free to stop and leave.

Questions concerning the study or your participation in the study should be directed towards Jamie Osborn using the contact information provided at the top of this page. For questions or concerns regarding your rights as a research participant, please feel free to contact the UT Office of Research, 1534 White Ave., Knoxville, TN 37996, Telephone: (865) 974-3466.

By proceeding to the questionnaire, I acknowledge that I have read and understood this statement, that I am 18 or older, and that I voluntarily agree to participate in this study.

Appendix C: Cooperation MTurk Advertisement and Instructions

Interpersonal Communication and Personality

This survey takes approximately 15-30 minutes and assesses various aspects of how you communicate as well as your personality. You must be 18 or older to participate and participation is voluntary. You will be paid $1.00 if you are found to be eligible and provide thoughtful responses. This research study is affiliated with the University of Tennessee.

To be found eligible and complete the survey, you must fulfill the following criteria:

You must be 18 years or older to participate.

For those who are eligible, the survey will continue, appearing immediately. You will receive a unique survey code at the conclusion of the survey that must be input into MTurk to verify that you completed the survey.

To begin, first accept the HIT, then right click on the survey link, and select "Open link in new tab." **Make sure to leave this window open as you complete the survey**. When you are finished, you will return to this page and paste your unique survey code into the box below the survey link and then press submit.

Note: This HIT is periodically re-posted. If you've already completed this HIT previously, please do not complete it a second time. You will not be compensated a second time. According to MTurk support, accepting and then returning HITs does not affect your account or your eligibility to complete other HITs.

Appendix D: Cooperation Consent Form

INFORMED CONSENT and AGREEMENT TO PARTICIPATE FORM

Interpersonal Communication and Personality

Researchers: Jamie Osborn E-Mail: josbor23@vols.utk.edu

School of Communication Studies Office: 293 COM
University of Tennessee Phone: (865) 974-0696
Michelle Violanti E-Mail: violanti@utk.edu
School of Communication Studies Office: 287
University of Tennessee Phone: (865) 974-7072

INTRODUCTION
The current research study is interested in examining the relationship between interpersonal communication patterns and personality.

SUBJECTS INVOLVEMENT IN THE STUDY
We are asking you to be in this research study because you are a research participant through MTurk who is over the age of 18. This study is voluntary and you are free to exit the study at any time. Please note that compensation is dependent upon submitting the survey to receive your code but any question can be skipped. During this study you will be asked to respond to a series of items with the degree to which they are true or untrue about you. This study will take approximately 15-30 minutes.

RISKS
There are no anticipated risks associated with the collecting of this data. There will be no information collected that connects you to your responses and every effort will be taken to secure the data collected. You are free to exit this study at any time.

BENEFITS
The benefit to you is that you will be helping to increase knowledge about communication and what it means to cooperate when communicating.

COMPENSATION
As an MTurk worker, you will receive $.50 compensation if you are found to be eligible and submit the survey with thoughtful responses through your MTurk worker account. At the end of the survey, you will be thanked and given an MTurk code to submit on the HIT preview site. This code will be approved by the researchers within 3 days of completing the survey to provide compensation. Each code is unique and randomly generated by Qualtrics to ensure your anonymity is not compromised.

CONFIDENTIALITY
You will not be asked to provide any identifying information beyond general demographic

information. Every effort will also be taken on the researcher's behalf to ensure that the information received is in no way connectable to you. The data will be only be accessed by the researchers and will be stored on a password protected computer.

CONTACT INFORMATION

If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study,) you may contact any of the following researchers, Jamie Osborn (josbor23@vols.utk.edu) or Dr. Michelle Violanti (violanti@utk.edu), at 1345 Circle Park Drive, Knoxville, TN 37916. If you have questions about your rights as a participant, you may contact the Office of Research Compliance at (865) 974-7697.

PARTICIPATION

Participation is voluntary. If at any time you feel unable to complete participation in this study, you are free to stop and leave.

By proceeding to the questionnaire, I acknowledge that I have read and understood this statement, that I am 18 or older, and that I voluntarily agree to participate in this study.

Appendix E: Cooperation and Experiment Rejection Message

Thank you for taking our survey. As stated in the Consent Form, there are certain requirements that must be met in order to participate and receive compensation.

You are seeing this message because you are not eligible to complete the study and receive compensation. This may be due to any of the following reasons:

You are under 18 years old.

This follows Amazon Mechanical Turk policy, which states that "a Requester may reject your work if the HIT was not completed correctly or the instructions were not followed."

You may close this window or use your explorer bar to navigate back to the Amazon Mechanical Turk site.

The Consent Form from the beginning of the study is below if you would like to review it:

Appendix F: Experiment MTurk Advertisement and Instructions

This survey takes approximately 15 minutes and is focused on communication.

- You must be 18 years or older to participate.

Brainstorming and Creative Thinking

This survey assesses your brainstorming and creative thinking skills. You must be 18 or older to participate and participation is voluntary. This research is affiliated with the University of Tennessee. You will be paid $1.00 if you are found to be eligible and submit the survey with thoughtful responses.

Instructions

For those who are eligible, the survey will continue, appearing immediately. You will receive a unique survey code at the conclusion of the survey that must be input into MTurk to verify that you completed the survey.

To begin, first accept the HIT, then right click on the survey link, and select "Open link in new tab." Make sure to leave this window open as you complete the survey. When you are finished, you will return to this page and paste your unique survey code into the box below the survey link and then press submit.

Note: This HIT is periodically re-posted. If you've already completed this HIT previously, please do not complete it a second time. You will not be compensated a second time. According to MTurk support, accepting and then returning HITs does not affect your account or your eligibility to complete other HITs.

Appendix G: Experiment Consent Form

Consent for Research Participation

Research Study Title: Creative Thinking and Brainstorming
Researcher(s): Jamie Osborn E-Mail: josbor23@vols.utk.edu

School of Communication Studies Office: 293 COM
University of Tennessee Phone: (865) 974-0696

Michelle Violanti E-Mail: violanti@utk.edu
School of Communication Studies Office: 287
University of Tennessee Phone: (865) 974-7072

Why am I being asked to be in this research study?

We are asking you to be in this research study because you are a research participant through MTurk who is over the age of 18. This study is voluntary and you are free to exit the study at any time. Please note compensation is dependent upon the completion of the study.

What is this research study about?

The purpose of the research study is to examine behaviors and communication related to brainstorming and feedback.

How long will I be in the research study?

If you agree to be in this study, your participation will last approximately 30 minutes from start to finish.

What will happen if I say "Yes, I want to be in this research study"?

If you agree to be in this study, we will ask you to:
 Brainstorm a list of items you would bring with you to a deserted island
 Receive feedback on your items from the researcher
 Type a 250-word essay about what items you would bring with you and why, incorporating the feedback from the researcher
 Complete a questionnaire

What happens if I say "No, I do not want to be in this research study"?
Being in this study is up to you. Your participation in this study is voluntary. You can stop up until you submit the survey. After you submit the survey, we cannot remove your responses because we will not know which responses came from you.

What happens if I say "Yes" but change my mind later?

Even if you decide to be in the study now, you can change your mind and stop at any time. If you decide to stop before the study is completed, you may exit out of the study. Your responses will not be included but you may participate in other MTurk studies.

Are there any possible risks to me?

Possible risks of this study include psychological discomfort or distress. You will have an opportunity to discuss the study with the researcher after the study has been completed. If you require any additional assistance for psychological distress, a resource to a crisis hotline will be provided to you at the end of the survey.

Are there any benefits to being in this research study?

Your participation in this study helps us learn more about human behavior and communication. We hope the knowledge gained from this study will benefit others in the future. Who can see or use the information collected for this research study? Any identifiable information will be destroyed after the study is completed, and all responses will be anonymous.

Will I be paid for being in this research study?

As an MTurk worker, you will receive $.50 compensation if you are found to be eligible and complete the survey with thoughtful responses through your MTurk worker account. For this study, you will be required to make a ten-item list, but you may skip any other question in the survey. At the end of the survey, you will be thanked and given an MTurk code to submit on the HIT preview site. This code will be approved by the researchers within 3 days of completing the survey to provide compensation. Each code is unique and randomly generated by Qualtrics to ensure your anonymity is not compromised.

Who can answer my questions about this research study?

If you have questions or concerns about this study, or have experienced a research related problem or injury, contact the researchers, Jamie Osborn josbor23@vols.utk.edu or Michelle Violanti Violanti@utk.edu. For questions or concerns about your rights or to speak with someone other than the
research team about the study, please contact:
Institutional Review Board
The University of Tennessee, Knoxville
1534 White Avenue
Blount Hall, Room 408
Knoxville, TN 37996-1529
Phone: 865-974-7697
Email: utkirb@utk.edu

STATEMENT OF CONSENT

I have read this form and the research study has been explained to me. I have been given the chance to ask questions and my questions have been answered. If I have more questions, I have been told who to contact. By continuing on with this study, you are agreeing to be in this study.

Appendix H: Feedback Messages

Condition 1: Positive Face Saving/Identity Politeness

After reviewing your list it has been determined your list needs: **MAJOR IMPROVEMENT**

Our team has looked over your list of ten items. All titles aside, from person to person we wanted to provide you with some feedback. Thank you for being part of our research team, we know it's not always the easiest team to be a part of. We are not always the most creative bunch ourselves, haha. Although we need more creativity and specificity, your items were much better than some of the others we have seen. You will have an opportunity to think through which items you would bring with you and why.

Condition 2: Positive Face Threatening/Identity Impoliteness

After reviewing your list it has been determined your list needs: **MAJOR IMPROVEMENT**

Our team has looked over your list of ten items. This list does not meet our expectations and we were disappointed to read it. We do not think you put much time or effort into your list. It is extremely frustrating that more thought and creativity were not put into these items, as it is very important to this study. You will have an opportunity to think through which items you would bring with you and why.

Condition 3: Negative Face Threatening/Autonomy Impoliteness

After reviewing your list it has been determined your list needs: **MAJOR IMPROVEMENT**

Our team has looked over your list of ten items. We advise you to develop your next list using more creative thinking skills and to put in more effort when you type this list up. We wish we weren't as invested as we are, but we hope you can be invested too. You will have an opportunity to think through which items you would bring with you and why.

Condition 4: Negative Face Saving/Autonomy Politeness

After reviewing your list it has been determined your list needs: **MAJOR IMPROVEMENT**

Our team has looked over your list of ten items. When one does this task, it is never easy to get the creative juices flowing. We realize this is a large task, and we thank you for your cooperation. We could not complete our research without you! You will have an opportunity to think through which items you would bring with you and why.

Appendix I: Debriefing

Debriefing

This study evaluated the degree to which the politeness of the researcher's feedback caused the participant to cooperate. Cooperation was measured through number of words written in the text box as well as items intended to measure the degree to which the participant would engage in communicatively cooperative actions.

Important to note is that both the amount of improvement feedback as well as the written feedback **WERE NOT REFLECTIVE OF YOUR LIST**. This feedback was predetermined and randomly assigned to subjects. Your list was not considered when this feedback was generated. Those with excellent lists were equally as likely to receive negative feedback as those with poor lists and vice versa.

If you feel this study has impacted you negatively in anyway please feel free to reach out to the researchers, student mental health services, or an emotional crisis hotline.

Researchers:

Jamie Osborn: josbor23@vols.utk.edu

Michelle Violanti: Violanti@utk.edu

Crisis Hotline

(855) 274-7471

Vita

Originally from Michigan, Jamie Osborn grew up in small town in the northern part of the state. After high school, she attended Central Michigan University (CMU) and earned a Bachelor of Science degree in Psychology. While pursing her undergraduate degree, she explored several options before deciding upon earning a Master of Arts in Communication Studies. While earning her Master's, Jamie taught public speaking at the undergraduate level and discovered her passion for both teaching and research. After earning her Master's, Jamie moved to Knoxville, TN and began her Ph.D. program in Communication Studies while continuing to teach. During this time, her passion for interdisciplinary research grew as she consumed as much literature related to biology and communication as she could. While in her final semesters of earning her doctorate, she began a Research Fellowship at the Advanced Neurosciences Institute in Franklin, TN. She enjoys collecting behavioral data on patients diagnosed with Multiple Sclerosis as well as working on research papers with neurology specialists.